

6-1-2012

The Relationships Among Childhood Sexual Abuse, Self-Objectification, and Sexual Risk Behaviors in Undergraduate Women

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ACCEPTANCE

This dissertation, THE RELATIONSHIPS AMONG CHILDHOOD SEXUAL ABUSE, SELF-OBJECTIFICATION, AND SEXUAL RISK BEHAVIORS, by LAUREL BROOKE WATSON, was prepared under the direction of the candidate's Dissertation Advisory Committee. It is accepted by the committee members in partial fulfillment of the requirements for the degree Doctor of Philosophy in the College of Education, Georgia State University.

The Dissertation Advisory Committee and the student's Department Chair, as representatives of the faculty, certify that this dissertation has met all standards of excellence and scholarship as determined by the faculty. The Dean of the College of Education concurs.

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ABSTRACT

THE RELATIONSHIPS AMONG CHILDHOOD SEXUAL ABUSE, SELF-OBJECTIFICATION, AND SEXUAL RISK BEHAVIORS

by
Laurel B. Watson

On a routine and daily basis, women are exposed to sexually objectifying experiences, which result in a number of harmful psychosocial outcomes (Fredrickson & Roberts, 1997). Five-hundred and forty-six women attending a large, Southeastern university participated in this study that investigated a conceptual model of how childhood sexual abuse (CSA) contributes to sexual risk behaviors (SRBs) via self-objectification (SO). In order to assess the causal relationships among variables, measured variable path analyses were conducted in order to test two theoretical models. The following instruments were used in this investigation: the Sexual Abuse Subscale of the Childhood Trauma Questionnaire (a measure assessing experiences of childhood sexual abuse [Bernstein, Stein, Newcomb, Walker, Pogge, Ahluvia et al., 2003]); the Body Surveillance Subscale of the Objectified Body Consciousness Scale (a measure assessing self-objectification [McKinley & Hyde, 1996]); the Body Shame Subscale of the Objectified Body Consciousness Scale (a measure assessing body shame [McKinley & Hyde, 1996]); the Toronto Alexithymia Scale-20 (assesses alexithymic symptoms, or difficulty identifying, describing, and expressing one's emotions [Bagby, Parker, & Taylor, 1994]), the Contraceptive Self-Efficacy Scale (assesses overall sexual self-efficacy, such as the ability to insist upon sexual protection [Levinson, 1986]), and the Sexual Risk Survey (assesses risky sexual practices [Turkchik & Garske, 2009]). Results revealed that the data fit the second model better than the first. Specifically, data revealed

that CSA directly predicted SRBs and was not mediated via SO, but was partially mediated by alexithymia and body shame. That is, CSA predicted increased alexithymia and body shame. Increased alexithymia predicted SRBs, whereas body shame decreased SRBs. Results also revealed that alexithymia and body shame mediated the relationship between SO and SRBs. Specifically, self-objectification led to increased alexithymia and body shame, and alexithymia increased SRBs while body shame decreased SRBs. Last, results revealed that body shame fully mediated the relationship between both CSA and SO and sexual self-efficacy. Pathways were significant at the $p < .05$ level.

THE RELATIONSHIPS AMONG CHILDHOOD SEXUAL ABUSE, SELF-
OBJECTIFICATION, AND SEXUAL RISK BEHAVIORS

by
Laurel B. Watson

A Dissertation

Presented in Partial Fulfillment of Requirements for the
Degree of
Doctor of Philosophy
in
Counseling Psychology
in
the Department of Counseling and Psychological Services
in
the College of Education
Georgia State University

Atlanta, Georgia
2012

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ACKNOWLEDGMENTS

This dissertation would not have been possible without the support, kindness, and generosity of many people.

Dr. Matheny, thank you so much for your belief in me and your wisdom, support, and enthusiasm for this project. Your support, both emotional and tangible, has been paramount in helping me succeed in a rigorous academic program and helping realize my potential. It has truly meant the world to me!

Dr. Ancis, from the bottom of my heart, thank you for inspiring me to follow my dreams and go out and change the world. Your grace, sincerity, curiosity, and passion for all that you do is a wonderful reminder that one voice, and mine in particular, can make a difference.

Dr. Brack, thank you for your belief in me and this project. Your consultation and support have been invaluable. You truly are an inspiration!

Dr. Gagne, I appreciate your support and patience in guiding me through this project. Most of all, I appreciate your teaching me that statistics are accessible and not something to be feared. Rather, it is a wonderful tool in helping me say what needs to be said.

To my wonderful partner in life, John. Thank you, thank you, thank you. I cannot say it enough. Your love, support, and kindness is without measure. Thank you for blessing my life in all of the ways that you do.

To my mother, thank you for your unconditional love, strength, warmth, sense of humor, and unwavering support. To my father, thank you for your love, support, wisdom, and instilling me with values that make me who I am. It has been a blessing to learn from both of you. To my grandmother, aka Swampy, your wit, charm, and love has been a place of refuge and solace for me throughout the years. Words cannot express how much I love you all!

To my friends, Franco Dispenza, Rebecca Blood, Tomina Schwenke, and Michael Leeman, your friendship and love has made me so happy. Thanks a million!

I am enormously grateful for all of your support!

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ABBREVIATIONS

APA	American Psychological Association
BShame	Body Shame
BSurv	Body Surveillance aka Self-Objectification
CSES	Contraceptive Self-Efficacy Scale
SO	Self-Objectification
TAS-20	Toronto Alexithymia Scale-20
SRBs	Sexual Risk Behaviors

CHAPTER 1
A CONCEPTUAL UNDERSTANDING OF THE RELATIONSHIPS AMONG
CHILDHOOD SEXUAL ABUSE, SELF-OBJECTIFICATION, AND SRBs

Literature Review

According to the United States Department of Justice, in the year 2007 there were approximately 248,300 reported incidents of rape, attempted rape, or sexual assault, which equates to about one form of sexual assault every two minutes (Rape, Abuse, and Incest National Network [RAINN], 2008; U. S. Department of Justice, 2007). Approximately 39 % of sexual assaults and/or rapes are reported to the police (U.S. Department of Justice, 2005), resulting in an inordinate amount of unreported sexual crimes. Moreover, women appear more likely than men to experience and report various forms of sexual crimes (RAINN, 2008; U.S. Department of Justice, 2006). Ohene, Halcon, Ireland, Carr, and McNeely (2005) found that women were more likely to report having experienced sexual abuse. In a study assessing the relationship between body image and prior abuse among adolescents, Logio (2003) found that girls were more likely to experience sexual abuse than boys.

Sexual abuse occurs in many forms and includes sexual assault (i.e., sexual contact such as fondling or touching that does not include rape), stranger rape, acquaintance rape, partner rape, drug facilitated sexual assault, childhood sexual abuse (CSA), incest, stalking, sexual harassment, exhibitionism, voyeurism, as well as sexual exploitation by helping professionals (RAINN, 2008). While many states within the United States of America use terms such as “sexual abuse,” “sexual assault,” and “rape” interchangeably (RAINN, 2008), this paper will use the term sexual abuse to encapsulate

the different forms of sexual victimization that occur. Thus, for the purpose of this paper, sexual abuse will be defined as any unwanted sexual activity forced upon one person by another.

A variety of systemic and sociocultural factors may contribute to and reinforce women's vulnerability to sexual abuse. For example, in her seminal text, "The Second Sex," de Beauvoir stated that "one is not born, but rather becomes, a woman" (1952, p. 267). According to de Beauvoir, *becoming* a woman occurs through a process in which she is made the "Other" through societal messages that value men over women. de Beauvoir (1952) stated that "humanity is male and man defines woman not in herself but as relative to him; she is not regarded as an autonomous being He is the subject, he is the Absolute—she is the Other" (de Beauvoir, 1952, p. xxii). Because womens' identities are shaped and constructed in reference to mens' (de Beauvoir, 1952), men may be socialized to view their own identities as superior, thereby deeming them the proprietors of girls' and womens' bodies. In fact, several scholars have asserted that rape and sexual assault are ways to maintain male dominion over women (Adams, 1993; Miller & Biele, 1993).

Additional sociocultural factors may place women and young girls at risk for sexual abuse. For example, the experience of poverty may contribute to less parental supervision, as parents and/or caregivers may work long hours and may be unable to afford child-care. As a result, individuals lacking parental supervision may be more susceptible to experiencing sexual abuse (World Health Organization [WHO], 2002). Moreover, permissive laws and policies related to sexual victimization; societal norms that tolerate sexual victimization; communities with high levels of crime; emotionally

unsupportive families; and patriarchal values may all contribute to a sociocultural context that bolsters the potential for women to experience sexual abuse (WHO, 2002).

Accordingly, the experience of sexual abuse has been found to contribute to a plethora of harmful psychosocial consequences (WHO, 2002). These consequences may include an increased risk for HIV and other sexually transmitted diseases (Allsworth, Anand, Redding, & Peipert, 2009; Alvarez et al., 2009; Voisin, 2005; Wilson & Widom, 2009); depression (Campbell & Soeken, 1999; Cecil & Matson, 2001; Cheasty, Clare, & Collins, 2002; Creamer, Burgess, & McFarlane, 2001); post-traumatic stress disorder (PTSD) (Grassi-Oliveira & Stein, 2008; O'Hare & Sherrer, 2009); substance abuse (Burnette et al., 2008; Schneider, Burnette, & Timko, 2008); suicidal behavior (Brezo et al., 2008; Ullman & Najdowski, 2009); decreased self-esteem (Reiland & Lauterback, 2008); social isolation (Gibson & Hartshorne, 1996; WHO, 2002); and eating disorders (Holzer, Uppala, Wonderlich, Crosby, & Simonich, 2008; Yackobovitch-Gavan et al., 2009).

Sexual Abuse and Sexual Risk Behaviors (SRBs)

In addition to the aforementioned psychological outcomes of sexual abuse, research has indicated that sexual traumas are related to increased sexual risk behaviors (SRBs), although the nature of this relationship is unclear. SRBs may be defined as risky sexual practices (e.g., neglect or infrequent use of contraceptive devices, sex-trading/prostitution, early initiation of sexual practices, increased number of sexual partners) that compromise women's sexual, physical, and emotional well-being. Numerous studies have demonstrated a significant relationship between sexual abuse and SRBs (Brown-Peterside, Ren, Chiasson, Koblin, 2002; Buzi et al., 2003; Messman-

Moore, Coates, Gaffey, & Johnson, 2008; Randolph & Mosack, 2006; Sikkema, Hansen, Meade, Kochman, & Fox, 2009; Steel & Herlitz, 2005; van Roode, Dickson, Herbison, & Paul, 2009; Voisin, 2005; Zierler, Feingold, Laufer, Velentgas, Kantrowitz-Gordon, & Mayer, 1991). In fact, research has suggested that women who have experienced sexual abuse possess significantly more negative attitudes about sexuality; less sexual assertiveness about birth control or refusing unwanted sex; less efficacy regarding HIV prevention; more anticipation of negative responses from partners concerning sex; more hard-substance use; and more sexual victimization in adulthood compared to non-sexually abused women (Johnson & Harlow, 1996). A study investigating SRBs among adolescent females indicated that participants with a history of sexual abuse, compared to those who did not, initiated sexual activity at younger ages, had more sexual partners within a three month period, and had a history of sexually transmitted diseases (Buzi et al., 2003). In a longitudinal study, van Roode et al. (2009) found that SRBs (i.e., greater number of sexual partners, unplanned pregnancies, abortions, and sexual transmitted infections) persisted into adulthood among women who were abused as children. Additionally, survivors of sexual abuse have been found to have more sexual partners (Messman-Moore et al., 2008; Randolph & Mosack, 2006) and engage in indiscriminate sexual activity (Messman-Moore et al., 2008); unprotected sex (Sikkema et al., 2009); and prostitution (James & Meyerding, 1977; Silbert & Pines, 1981). Furthermore, research has suggested that survivors of sexual abuse are more likely to exchange sex for drugs and/or money than individuals who have not experienced sexual abuse (Brown-Peterside et al., 2002).

Although research has demonstrated a link between sexual abuse and SRBs, the pathways through which this occurs may not be direct in nature, as many individuals who have survived sexual abuse may not engage in SRBs. In fact, various studies have suggested that a history of sexual abuse does not necessarily contribute to SRBs (Hamburger et al., 2004; Littleton, Radecki Breitkopf, Berenson, 2007; Myers et al., 2006; Simoni, Sehgal, & Walters, 2004). For example, Myers et al. (2006) investigated the relationships among CSA severity, PTSD, and SRBs among HIV-positive women. Interestingly, the results suggested that CSA and adult re-victimization contributed to PTSD risk and sexual trauma symptoms; however, CSA and adult re-victimization did not contribute to SRBs. Moreover, Littleton et al. (2007) investigated the association between sexual and physical abuse history and adult sexual risk behaviors; they found that a history of physical abuse was associated with SRBs, although a history of sexual abuse was not.

These results suggest that the relationship between sexual abuse history and subsequent SRBs may not be direct in nature, perhaps suggesting that mediational variables may further explain this relationship. For example, injection drug use has been found to mediate the relationship between sexual abuse and sexual risk-taking behaviors among urban, American Indian women (Simoni et al., 2004). In addition, Smith, Davis, and Fricker-Elhai (2004) found that impaired perception of risk behavior mediated the relationship between various forms of trauma, including sexual abuse, and various forms of risk behavior, such as substance use, unsafe sexual behavior, and aggressive/illegal behavior. Miller (1999) developed a conceptual model to explain the relationship between sexual abuse and HIV-risk among women, asserting that drug use as a form of

coping, depression, PTSD, and dissociation may mediate the relationship between sexual abuse and SRBs. These results indicate that the relationship between sexual abuse and SRBs may not be direct in nature, and this relationship may be explained by mediating variables.

Additionally, a number of moderating factors may exacerbate SRBs when one has been abused. For example, severity of abuse has been demonstrated to increase susceptibility for SRBs. Specifically, Senn, Carey, Venable, Courty-Doniger, and Urban (2007) found that participants who survived sexual abuse involving force and/or penetration engaged in increased SRBs (i.e., increased number of lifetime sexual partners, trading sex for drugs and/or alcohol, and prior STD diagnoses) when compared to those who did not experience sexual abuse, or among those who experienced sexual abuse without force and/or penetration. Sexual abuse severity was also found to contribute to HIV risk behaviors among children in foster care, after taking into account other forms of childhood traumas and behavioral problems (Elze, Auslander, McMillen, Edmond, & Thompson, 2001). A history of CSA contributed to sexual re-victimization, which in turn led to a greater number of unplanned pregnancies and abortions, as well as increased SRBs (Wyatt, Guthrie, & Notgrass, 1992).

As indicated, many scholars have attempted to explain the relationship between sexual abuse and SRBs, yet this relationship remains ambiguous, and the pathways through which these behaviors occur are enigmatic and necessitate further elucidation. One such pathway that deserves exploration is self-objectification.

Sexual Abuse and Self-Objectification

Sexual abuse and the body. The experience of sexual abuse may ultimately affect a woman's relationship with and view of her body, which may help explain the propensity to engage in SRBs. Merleau Ponty (1962) suggested that the body is the epicenter through which individuals engage, experience, and learn about the world; all incoming information is at first experienced and received through the body to inform our perceptions of being in-the-world. Thus, when the body is violated and assaulted, individuals may learn that the world is an unsafe and unpredictable place (Herman, 1982; Springer, 1997). Moreover, women, in particular, tend to equate their identities with their bodies, as they are often socialized to view their sexualized bodies as their sense of worth (Wesely, Allison, & Schneider, 2000). Such bodily violations may subsequently affect womens' overall sense of identity and value. Wesely et al. (2000) stated:

The female body, in its confusing and perhaps contradictory relationship to the female identity, takes on particular significance for women in abusive relationships. In the most obvious sense, the body becomes a complete betrayal; defenselessness is embodied in the flesh. In situations of abuse, the victim separates more and more from her body, feeling that it is the enemy (p. 212).

Therefore, when women perceive that they have been "betrayed" by their bodies, they may then "pretend it doesn't exist or turn on it in anger and confusion" (Young, 1992, p.90). Such responses are theorized to contribute to a variety of attacks against the body including suicidal behavior, substance abuse, compulsive and unsafe sexual behavior, self-injury, and eating disordered behaviors (Springer, 1997; Young, 1992)—all of which have been demonstrated to result from sexual abuse.

Springer (1997) suggested that the aforementioned assaults against the body (e.g., suicidal behavior, substance abuse, self-injury, compulsive and unsafe sexual behavior,

etc.) may, in fact, “reflect an effort to establish or re-establish body-based agency” (p. 282). Essentially, a tension exists between viewing the body as an enemy that invites victimization and a tool for achieving empowerment (Coy, 2009). Such body-based powerlessness may be intolerable for women. Thus, in order to establish a sense of body-based agency, women who have been sexually abused may utilize their bodies to achieve a sense of intra and interpersonal control. For example, studies examining the relationships that exotic dancers and prostitutes have with their bodies clearly demonstrate these dynamics (Coy, 2009; Downs, James, & Cowan, 2006; Wesely, 2002). Coy (2009) investigated prostitutes’ relationships with their bodies and found that most of the participants had endured physical and sexual abuse within their childhoods. As a result, the participants matured to view their bodies as objects that could be appropriated by others. The participants discussed a process in which they would dissociate from their physical bodies when engaged in sexual relationships with johns, while also linking their self-worth with their ability to attract sex buyers with their bodies. According to Coy (2009), “selling sex represents an opportunity to reposition the body image as useful and valued, without challenging the ways in which the women define themselves by their sexualized bodies and are reduced to their bodies” (p. 72). In a qualitative study, Wesely (2002) investigated how exotic dancers utilized their bodies in order to establish a sense of power. Similarly, many of the participants within her study revealed that they had experienced sexual abuse while in childhood. Many of the women felt that they were able to manipulate men through their bodies, which again, was described as an effort to re-establish power; however, Wesely (2002) asserted that the objectified body constructions seen among the participants inevitably contributed to further experiences of

powerlessness, as the settings in which the women existed made them vulnerable to re-victimization. Thus, among women who have been sexually abused, the body may signify both a vehicle for victimization and body-based empowerment. This struggle may result in both self-sexualization and powerlessness while in sexual relationships, which may then contribute to SRBs among women.

Objectification theory. Objectification theory (Fredrickson & Roberts, 1997) may provide a useful framework to further understand the relationships among sexual trauma, the body, and SRBs, while also considering the sociocultural context which may subject women to sexual abuse. Fredrickson and Roberts (1997) espoused that women's bodies exist within social and cultural contexts, and accordingly they are sexually objectified on a regular basis. The objectification of women may occur directly (e.g., sexual abuse, sexual harassment) and indirectly (e.g., objectifying gaze, media representations sexualizing women's bodies). According to Fredrickson and Roberts (1997), "the common thread running through all forms of sexual objectification is the experience of being treated *as a body* (or collection of body parts) valued predominantly for its use to (or consumption by) others" (p. 174). Clearly, the experience of sexual abuse is an act of power and control that grossly reduces women to their bodies and sexual parts. Bartky (1990) stated:

Sexual objectification occurs when a woman's sexual parts or functions are separated from her person, reduced to the status of mere instruments, or else regarded as if they were capable of representing her. To be dealt with in this way is to have one's entire being identified with the body (p. 35).

In fact, the experience of indirect sexual objectification often appears within institutional settings. For example, physical attractiveness among female job applicants has been found to influence the perception of job qualifications (Cann, Siegfried, & Pearce, 1981),

as well as hiring practices (Cash, Gillen & Burns, 1977). Moreover, children and adults regarded as being more attractive have been found to be treated more positively than individuals not viewed as attractive (Langlois, Kalakanis, Rubenstein, Larson, & Hallam, 2000).

Such objectifying experiences, whether direct or indirect, may be internalized, whereby women may learn to equate their worth with their bodies. That is, as a result of sexually objectifying experiences, women may internalize the experience of being objectified and “at some level, treat themselves as objects to be looked at or evaluated” (Fredrickson & Roberts, 1997, p. 177); this process is termed “self-objectification” (Fredrickson & Roberts, 1997). Hill (2003) found empirical support that sexually objectifying experiences (i.e., indirect and direct objectification) predicted self-objectification among women. Self-objectification may manifest as body consciousness, appearance related anxiety, as well as any measure women adopt to objectify their bodies (e.g., exotic dancing, prostitution, etc.). In essence, individuals may internalize an observer’s perspective on their appearance, whereby one’s core self-image is inevitably constructed by social prescriptions that equate women’s self-worth with their bodies (de Beauvoir, 1952; Fredrickson & Roberts, 1997).

Self-objectification is not without emotional and experiential consequences, however. Fredrickson and Roberts (1997) proposed four emotional and experiential outcomes of self-objectification: (a) body shame; (b) appearance anxiety; (c) decreased peak motivational states; and (d) decreased awareness of internal body states. Body shame occurs when an individual evaluates him/herself against a cultural standard and perceives that she/he falls short of this standard. Appearance anxiety may be experienced

in two ways: appearance related anxiety and concerns about physical safety. Appearance anxiety may arise due to the ambiguous nature of not knowing when one's body will be evaluated. Anxiety regarding physical safety is inextricably linked to appearance anxiety (Fredrickson & Roberts, 1997), as women who are perceived as being more attractive are often assigned greater blame for being raped than rape survivors considered to be less attractive (Jacobson & Popovich, 1983). Consequently, physical attractiveness may beget concerns of physical safety among women. Additionally, women's peak motivational states, or one's ability to fully engage in a task, may be thwarted if she feels that she is being sexually objectified (Fredrickson & Roberts, 1997). Lastly, women may experience a decreased awareness of internal body states, as they may disconnect from their own internal experience upon adopting an observer's perception of their physical being. Fredrickson and Roberts (1997) elaborated that these four outcomes of self-objectification (i.e., shame, anxiety, decreased peak motivational states, decreased awareness of internal body states) may converge and contribute to mental health concerns frequently seen among women, including depression, eating disorders, and sexual dysfunction (see Figure 1).

A number of empirical studies have investigated the psychological outcomes of self-objectification (Calogero, 2009; Moradi, Dirks, & Matteson, 2005; Muehlenkamp & Saris-Baglama, 2002; Muehlenkamp, Swanson, & Brausch, 2005; Piran & Cormier, 2005) supporting objectification theory as a valid framework for women's experiences with sexual objectification. One proposed and empirically supported psychological outcome of self-objectification is depression (Grabe, Hyde, & Lindberg, 2007; Haines, Erchull, Liss, Turner, Nelson, Ramsey et al., 2008; Harrison & Fredrickson, 2003;

Muehlenkamp & Saris-Baglama, 2002; Muehlenkamp et al., 2005; Tiggeman & Kuring, 2004). In a study assessing self-objectification, risk taking, and self-

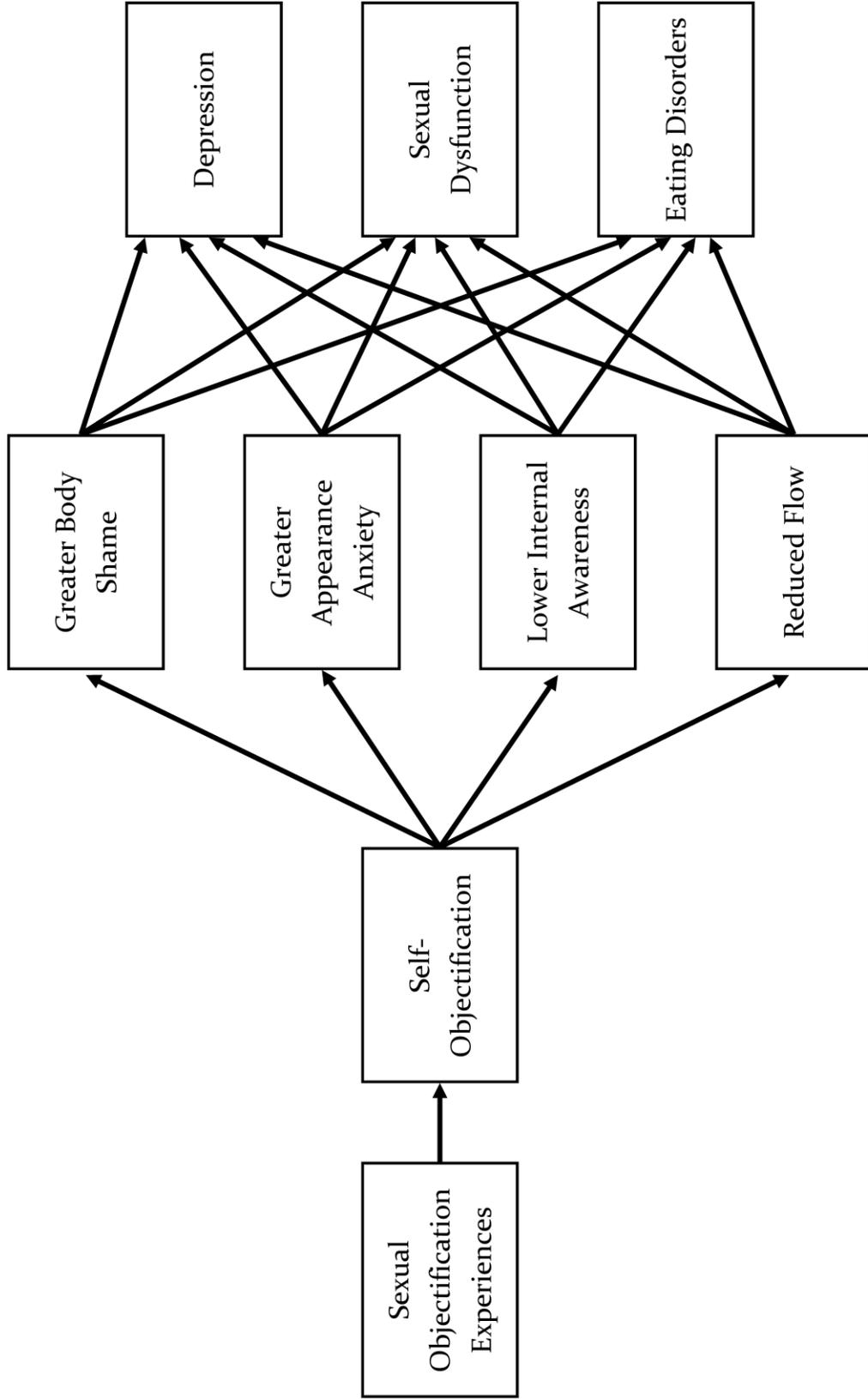


Figure 1. Fredrickson and Roberts's (1997) Objectification Theory Model.

harm among college women, self-objectification predicted negative body regard, which then predicted depressive symptomology. In turn, depressive symptomology resulted in self-harm behaviors (Muehlenkamp et al., 2005). Research has also suggested a direct relationship between self-objectification and depressed mood (Tiggeman & Kuring, 2004), while in another study, body shame and rumination mediated the relationship between self-objectification and depression among girls (Grabe et al., 2007).

Furthermore, Muehlenkamp and Saris-Baglama (2002) found a direct relationship between self-objectification and decreased internal awareness, and they also found that that decreased internal body awareness partially mediated the relationship between self-objectification and depressive symptoms.

Research has also suggested that self-objectification contributes to disordered eating behaviors (Muehlenkamp & Saris-Baglama, 2002; Piran & Cormier, 2005), although body shame has been found to mediate the relationship between self-objectification and disordered eating among women (Calogero, 2009; Calogero, Davis, & Thompson, 2005; Noll & Fredrickson, 1998). Additionally, Moradi et al. (2005) found that internalized standards of beauty mediated the relationship between sexual objectification experiences and body shame, body surveillance, and eating disorders. In essence, empirical research has suggested that eating disordered behaviors may result from the practice of self-objectification.

Disorders in sexual functioning are also theorized to result from self-objectification (Fredrickson & Roberts, 1997). Indeed, research has provided empirical support for this assertion (Sanchez & Kiefer, 2007; Steer & Tiggeman, 2008), suggesting that sexual dysfunction is a consequence of self-objectification. Specifically, self-

objectification was found to contribute to body shame and appearance anxiety, which in turn increased women's self-consciousness during sexual activity while decreasing sexual functioning (Steer & Tiggeman, 2008). Additionally, Sanchez and Kiefer (2007) found that body shame contributed to self-consciousness, which in turn decreased arousability, the potential for orgasm, and sexual pleasure. Evidence has also suggested that self-objectification predicts body monitoring, appearance anxiety, body shame, decreased internal awareness, and decreased flow (Szymanski & Carr, 2007). In turn, greater appearance anxiety and less internal awareness led to more sexual anxiety, greater sexual depression, and more external sexual control (Szymanski & Carr, 2007). Again, these studies verify Fredrickson and Robert's (1997) assertions that self-objectification may result in impaired sexual functioning among women.

Interestingly, women's age serves a moderating effect in terms of the degree to which women self-objectify. Lindberg, Grabe, and Shibley Hyde (2007) found that as girls began pubertal development, they experienced more peer sexual harassment, which resulted in increased body surveillance (frequently used as a measure of self-objectification) and body shame. Research has suggested, however, that self-objectification decreases with age (Szymanski & Henning, 2007). Although self-objectification may decrease with age, body monitoring tends to increase, which results in less internal flow, greater body shame, and appearance anxiety (Szymanski & Henning, 2007). Furthermore, Augustus-Horvath and Tylka (2009) found that older women (ages 25 and older) demonstrated a stronger relationship between body shame and disordered eating behaviors than younger women (ages 18-24). Thus, although older women may self-objectify to lesser degrees, they are more likely to experience body

shame, body monitoring, and appearance anxiety as they move away from the societal standards of beauty. These findings suggest that objectification theory is a valid theoretical framework for women of all ages, although older women may self-objectify to lesser degrees.

In sum, objectification theory (Fredrickson & Roberts, 1997) suggests that women exist within an objectifying society, in which they are reduced to their body parts and sexual functions on a daily and routine basis. In turn, women may internalize an observer's perspective on their physical selves and treat themselves as objects to be evaluated (i.e., self-objectification). Fredrickson and Roberts (1997) suggested that the experience of being sexually objectified and internalizing an observer's perspective may contribute to a variety of emotional experiences (i.e., body shame, appearance anxiety, reduced flow, and decreased awareness of internal states), which may then contribute to problems such as depression, eating disorders, and sexual dysfunction.

Most research to date on objectification theory, however, has investigated the indirect forms of objectification (i.e., media representations, objectifying gaze). Furthermore, research has often relied upon self-report measures of self-objectification without exploring sexual objectification experiences as a precursor. Hill and Fischer (2008) sought to expand the operational definition of sexual objectification experiences by including sexual abuse. They found that sexual abuse experiences did not contribute to self-objectification; however, these findings may be due to measurement issues with the Sexual Objectification Questionnaire (personal communication, Dawn Szymanski, Ph.D., January 22, 2008), as well as the fact that they did not assess for CSA, but rather adult sexual abuse. Szymanski and Carr (2007) found a small, but significant relationship

between adult and adolescent sexual victimization experiences and self-objectification using the Body Surveillance subscale of the Objectified Body Consciousness Scale (McKinley & Hyde, 1996). Thus, direct sexual objectification experiences (i.e., sexual abuse), specifically CSA, remains an unexplored territory in the objectification theory literature (Fredrickson & Roberts, 1997; Hill & Fischer, 2008; Moradi & Huang, 2008). Moreover, the objectification literature has yet to fully explore the relationships among sexual abuse, self-objectification, and sexual risk behaviors (SRBs).

Sexual abuse, Self-Objectification, and Sexual Risk Behaviors

Although previous research has investigated the psychological consequences of indirect objectification experiences (e.g., media representations, sexualizing comments, objectifying gaze), a paucity of research has assessed the relationship between direct forms of objectification (i.e., sexual abuse) and self-objectification (Fredrickson & Roberts, 1997; Hill & Fischer, 2008; Moradi & Huang, 2008; Szymanski & Carr, 2007). While women who experience indirect forms of objectification may internalize an observer's perspective and self-objectify, it is reasonable to suspect that women who experience sexual abuse may also internalize these objectifying experiences and begin to self-objectify. Finkelhor and Browne (1985) suggested that CSA may result in traumatic sexualization, whereby young women and girls are inappropriately sexualized. Finkelhor and Browne (1985) asserted that the dynamics of the abusive relationship socializes young girls to view their bodies as an agent for attaining emotional rewards from their perpetrators. In adulthood, these dynamics may be perpetuated in romantic and/or sexual relationships, whereby women may seek emotional fulfillment and security through sexual activities.

Some scholars, however, view this sexualizing behavior as a re-enactment of one's trauma, whereby individuals who have survived sexual abuse attempt to gain mastery over the traumatic experience (Herman, 1997; Levine & Frederick, 1997; van der Kolk, 1989). Herman (1997, p. 39) stated:

Adults as well as children often feel impelled to re-create the moment of terror, either in literal or in disguised form. Sometimes people reenact the traumatic moment with a fantasy of changing the outcome of the dangerous encounter. In their attempts to undo the traumatic moment, survivors may even put themselves at risk of further harm.

In essence, survivors of sexual abuse may knowingly or unknowingly place themselves in harmful and risky situations that may mirror the abuse experience in an effort to master and heal from the event.

While Herman (1997) and Levine and Frederick (1997) emphasized how individuals may re-enact their traumas in an attempt to heal, Walker and Browne (1985) offered an additional explanation that emphasized how gender socialization processes affect how women cope and respond to the abuse that they endure. That is, women are socialized to "adapt and submit" to abuse as opposed to resisting it (Walker & Browne, 1985, p. 179). Furthermore, women and girls are often socialized to be dependent upon those with whom they share intimate relationships for a sense of emotional wellbeing (Gilligan, 1993; Walker & Browne, 1985). For example, Walker and Browne (1985) suggested:

Little girls are typically taught to reach their goals by attempting to win the approval of others, adapting to dominant behavior, and suppressing angry or aggressive reactions in favor of peace-keeping maneuvers or persuasion. They do not learn the confrontation skills that may be necessary to stop abuse, and their realistic appraisal of being at greater physical risk in an argument with a male partner may dissuade them from responding assertively and may lead to acquiescence and acceptance of abusive behavior as unavoidable (p. 180).

Thus, the concurrent experiences of traumatic sexualization and the deeply-ingrained, disempowering gender socialization processes may create a recipe for self-objectification.

Despite the effort to establish a sense of security, Herman (1997) suggested that such efforts may go awry and result in further harm and self-destructive behavior for the individual. One potential destructive consequence of traumatic symptomatology and self-objectification may be an increased risk for SRBs. In fact, research suggests that women who have experienced sexual abuse have been found to possess significantly more negative attitudes about sexuality; less sexual assertiveness about birth control or refusing unwanted sex; less efficacy regarding HIV prevention; more anticipation of negative responses from partners concerning sex; more hard-substance use; and more sexual victimization in adulthood compared to non-sexually abused women (Johnson & Harlow, 1996). Moreover, a number of studies have indicated that women who experience sexual abuse are at risk for engaging in prostitution (James & Meyerding, 1977; Silbert & Pines, 1981). However, no research to date has investigated how self-objectification may mediate the relationship between sexual abuse and SRBs.

Szymanski and Carr (2007) explored sexual victimization experiences and self-objectification as concurrent predictors of psychosexual adjustment (i.e., sexual anxiety, sexual depression, external sexual control, fear of sex, and sexual satisfaction). The relationship between self-objectification and psychosexual adjustment was fully mediated by appearance anxiety, body shame, internal awareness, and flow. That is, greater degrees of self-objectification contributed to increased appearance anxiety, body shame, and decreased internal awareness and flow, which in turn decreased psychosexual functioning. Sexual victimization experiences also predicted more sexual anxiety, sexual

depression, and external sexual control. Although this study shed light on the concomitant experiences of sexual abuse and self-objectification, it did not investigate how self-objectification may serve a mediating effect between sexual abuse and SRBs, specifically.

Impett, Schooler, and Tolman (2006) investigated the relationship between self-objectification and SRBs among adolescent females, although they did not consider sexual abuse within their structural model. Impett et al. (2006) found that body objectification (i.e., self-objectification) and inauthenticity in relationships (i.e., silencing one's own relational wants and needs) were associated with poorer sexual self-efficacy. In turn, less sexual self-efficacy, or the belief that an individual will not be successful in asserting her/himself in sexual relationships, contributed to less frequent use of sexual protection. Similarly, in a mixed methods study, Hirschman, Impett, and Schooler (2006) interviewed a sample of adolescent females and found that participants who had higher rates of self-objectification were less likely to communicate with their partners about the use of sexual protection. These results suggested an indirect relationship between self-objectification and SRBs, indicating that additional mediating variables, such as sexual self-efficacy, may further explain this phenomenon.

In sum, most objectification research has investigated the effects of indirect sexually objectifying experiences on self-objectification. More research is needed in order to indicate whether direct forms of sexual objectification contribute to self-objectification. Additionally, research has suggested that women who engage in self-objectification may engage in SRBs (Hirschman et al., 2006; Impett et al., 2006), although this relationship may not be direct in nature (Impett et al., 2006). Thus, a greater

understanding of variables (e.g., self-objectification, sexual self-efficacy, etc.) that may mediate the relationship between sexual abuse and SRBs may provide clarity so that helping professionals may intervene and encourage healthy sexual decision-making and protection among women.

Sexual abuse, Self-objectification, alexithymia, SRBs. Sexual abuse has also been found to contribute to alexithymia (Berenbaum, 1996; Paivio & McCulloch, 2004; Scher & Twaite, 1999; Zeitlin, McNally, & Cassiday, 1993; Zlotnick, Shea, Pearlstein, Simpson, Costello, & Begin, 1996), which literally means “no words for mood” (Zlotnick et al., 1996). Berenbaum (1996) explored the relationships among childhood abuse, alexithymia, and personality disorders; he found that survivors of childhood abuse were more likely to have symptoms of alexithymia than their non-abused counterparts. Rape (Zeitlin et al., 1996) and sexual assault survivors (Scher & Twaite, 1999) have been found to have more alexithymic symptoms than non-abused participants. Moreover, greater symptoms of alexithymia were seen among survivors whose abuse occurred over longer durations; was perpetrated by a father or step-father; occurred after age 12; and involved oral, vaginal, and/or anal penetration.

As previously indicated, one proposed emotional consequence of self-objectification is decreased awareness of internal bodily states (Fredrickson & Roberts, 1997). Tiggeman and Kuring (2004) investigated the mediating effects of awareness of internal bodily states on self-objectification and depression and eating disorders; they found that decreased internal bodily awareness did not mediate these relationships. In explaining this finding, Tiggeman and Kuring (2004) reasoned that the measure they utilized (Body Consciousness Scale) had a low internal reliability, and that the construct

of decreased internal awareness of bodily states needed further attunement. Likewise, Szymanski and Henning (2006) assessed the mediating effects of internal awareness between self-objectification and depression and did not find significant pathways between these variables. Muehlenkamp and Saris-Baglama (2002), however, conceptualized decreased internal awareness of bodily states as alexithymia. When defining decreased internal bodily states as alexithymia, Muehlenkamp and Saris-Baglama (2002) found that self-objectification predicted alexithymia. Zlotnick et al. (1996) explained that rather than use words to describe their emotional states, individuals with alexithymia frequently communicate through their actions, albeit such actions may at times turn self-destructive.

Although no research to date has investigated the relationship between alexithymia and SRBs, research has suggested that alexithymia may contribute to other forms of risk and self-harming behaviors. Zlotnick et al. (1996) found that among female inpatients, those who self-injured had more dissociative symptoms and alexithymia than those who did not self-injure; however, these authors did not assess a temporal model and therefore could not establish whether alexithymia preceded self-injury. Paivio and McCulloch (2004), however, found that alexithymia mediated the relationship between non-sexual forms of abuse and self-injurious behaviors, suggesting that abuse experiences may precede alexithymic responses. Additionally, alexithymia was higher among individuals who engaged in emotional over-eating (van Strien & Ouwens, 2007) and individuals with binge-eating disorder (Wheeler, Greiner, & Bouton, 2005). Moreover, individuals with abuse histories who also abused substances were found to

have higher rates of alexithymia (Evren, Evren, Dalbudek, Ozcelik, & Oncu, 2009; Mann & Wise, 1995).

Despite the fact that research has yet to investigate the relationship between alexithymia and SRBs, research has suggested that alexithymia mediates the relationship between abuse and self-injurious behaviors (Paivio & McCulloch, 2004); one might also view SRBs as a form of self-injury. Thus, one might surmise that individuals who find it difficult to describe and identify their feelings may also have alexithymic reactions when engaged in intimate relations, thereby placing their physical and sexual wellbeing at risk. For example, Impett et al. (2006) suggested that “a woman who is separated from her own feelings may find it difficult to assert (or even know) her own desires and instead act based on her partner’s desires and interests” (p. 133; see also Tolman, 2002). In acting upon their partner’s desires, women may neglect and/or remain unaware of their own emotions.

Taken together, the objectifying experience of sexual abuse may result in self-objectification, whereby women may treat themselves as objects to be evaluated. In turn, self-objectification has been found to contribute to alexithymia, or a decreased awareness of one’s own emotional reactions. Alexithymia has been found to contribute to other forms of risk behaviors and self-injury (e.g., substance abuse, binge-eating, self-mutilation). Thus, it would be reasonable to expect that alexithymia might also contribute to SRBs.

Sexual abuse, self-objectification, sexual self-efficacy, and SRBs. An array of studies have suggested that sexual abuse contributes to decreased sexual self-efficacy and subsequent SRBs (Johnsen & Harlow, 1996; Lemieux & Byers, 2008; Van Bruggen &

Runtz, 2006; Wingood & DiClemente, 1997). Sexual self-efficacy may be defined as the belief that one may act upon and communicate her/his sexual needs in a relationship (Impett et al., 2006). Hendrick and Reddy (2007) found that participants with a history of sexual abuse had less sexual self-esteem, and they were more likely to engage in SRBs. Women who have been sexually abused have been found to possess less sexual assertiveness regarding the use of birth control, refusing unwanted sex, and HIV prevention than women who were not sexually abused (Johnsen & Harlow, 1996). Additionally, women with sexual abuse histories were more likely to anticipate negative responses from their partners concerning safer sex. Lemieux and Byers (2008) found that participants who had survived CSA had less sexual self-esteem, which in turn led to higher incidents of indiscriminate sexual activity. Research has also suggested that sexual abuse contributes to decreased sexual assertiveness, which in turn may contribute to subsequent experiences of sexual abuse (Livingston, Testa, VanZile-Tamsen, 2007; Van Bruggen, Runtz, & Kadlec, 2006). Lastly, among a sample of African-American women, those engaged in an abusive relationship were less likely to use condoms than women who were not in an abusive relationship (Wingood & DiClemente, 1997). African-American women in abusive relationships were less likely to utilize sexual protection because they were more likely to experience verbal abuse, threats of physical abuse, and threats of abandonment upon negotiating condom usage (Wingood & DiClemente, 1997).

As previously indicated, Impett et al. (2006) found that decreased sexual self-efficacy mediated the relationship between self-objectification and SRBs. That is, self-objectification contributed to decreased sexual self-efficacy, and in turn, resulted in less use of sexual protection (i.e., condom usage, birth control). Additionally, Schooler, Ward,

Merriwether, and Caruthers (2005) found a correlation between women who had greater levels of self-objectification and less frequent use of condoms or other contraceptive methods.

In sum, sexual self-efficacy may be influenced by the experience of sexual abuse. For example, Finkelhor and Browne (1985) suggested that CSA results in a sense of powerlessness, whereby “the child’s will, desires and sense of efficacy are continually contravened . . . it [powerlessness] is increased when children feel fear, are unable to make adults understand or believe what is happening, or realize how conditions of dependency have trapped them in the situation” (p. 532). Thus, as a result of these abhorrent sexually objectifying experiences and ensuing sense of powerlessness, women may lack efficacy to assert themselves in sexual relationships. This lack of voice in one’s sexual life may contribute to SRBs, whereby women refrain from engaging in sexually protective measures. With further knowledge of these pathways, women may be assisted in decreasing their sexual risk behaviors perhaps by increasing their sexual self-efficacy.

Sexual abuse, self-objectification, body shame, and SRBs. Among the numerous psychological outcomes of sexual abuse, body shame has been found to result from experiences of childhood abuse (Andrews, 1995), specifically sexual abuse (Andrews, 1997; Logio, 2003; Tripp & Petrie, 2001; Wenninger & Heiman, 1999). Logio (2003) found that adolescents who experienced prior physical and sexual abuse were more likely to possess an overweight body image than an accurate body image. Moreover, prior physical and sexual abuse was found to predict unhealthy body images, among White participants in particular. Although controlling for CSA, Whealin and Jackson (2002) examined the long-term impact of unwanted sexual attention during

childhood on women's self-concept (i.e., academic performance, physical appearance, global self-concept, body image, and body anxiety). The authors found that greater frequency of unwanted sexual attention during childhood was associated with poor physical appearance self-esteem, body image, and body anxiety (Whealin & Jackson, 2002). They also explored negative emotional reactions as a moderator between unwanted sexual attention and self-concept; the results suggested that negative emotional reactions did not moderate these relationships. Interestingly, Whealin and Jackson (2002) argued that these results implied that the objective experience of unwanted sexual attention, alone, is damaging to a woman's self-esteem and body image, regardless of one's subjective responses to these experiences. Furthermore, Wenninger and Heiman (1999) assessed body image among CSA survivors, finding that female survivors of CSA possessed lower body esteem and body image compared to those who had not experienced CSA. Additionally, evidence suggested that survivors of CSA treated their bodies in more destructive, neglectful, and harmful ways than participants who did not experience CSA. That is, CSA survivors reported more recreational drug use, self-injury, and SRBs (i.e., multiple sexual partners) than non-CSA survivors (Wenninger & Heiman, 1999). Moreover, body shame has been found to mediate the relationship between childhood abuse and depression (Andrews, 1995), as well as bulimia (Andrews, 1997).

These findings indicated that women who have survived sexual abuse possess more body shame and appearance anxiety than non-abused women. Body shame and appearance anxiety are also empirically supported results of self-objectification (Calogero, 2009; Calogero et al., 2005; Moradi et al., 2005; Noll & Fredrickson, 1998). Koze, Tylka, Augustus-Horvath, and Denchik (2007) found that self-objectification

mediates the relationship between sexually objectifying experiences (e.g., sexual abuse, objectifying gaze, etc.) and body shame, as was initially proposed by Fredrickson and Roberts (1997). Downs, James, and Cowan (2006) assessed body objectification, self-esteem, and relationship satisfaction between college women and exotic dancers. Compared to college women, exotic dancers reported more body surveillance and were more likely to value body attractiveness over physical competence (Downs et al., 2006). Additionally, research on objectification theory has reinforced body shame as a significant mediating factor between self-objectification and a variety of psychological outcomes, such as eating disorders (Calogero et al., 2005; Greenleaf, 2005; Noll & Fredrickson, 1998); depression (Grabe et al., 2007); self-esteem and life satisfaction (Mercurio & Landry, 2008); and decreased sexual functioning (Sanchez & Kiefer, 2007; Steer & Tiggeman, 2008).

Schooler et al. (2005) suggested that the experience of body shame leads one to wish to disappear, and this avoidant coping mechanism has been found to increase SRBs among adolescents (Cooper, Wood, Orcutt, & Albino, 2003). Furthermore, unhealthy weight control mechanisms and higher body mass index have been found to predict higher rates of SRBs among women (Eisenberg, Neumark-Sztainer, & Lust, 2005), and these factors (e.g., higher BMI and unhealthy weight control mechanisms) are associated with body shame (Conradt, Dierk, Schlumberger, Rauh, Hebebrand, & Rief, 2007). Additionally, research has suggested a mediational effect, whereby body shame mediates the relationship between sexual abuse and self-harming behaviors (Milligan & Andrews, 2005). While self-harming behaviors are typically conceptualized as cutting, burning, or

other forms of behaviors, engaging in SRBs may also be viewed as a form of self-harming behavior.

Body shame, sexual self-efficacy, and SRBs. Although research has suggested a link between body shame and SRBs, it is also reasonable to believe that body shame may also contribute to less sexual self-efficacy. A plethora of studies have suggested that one emotional consequence of self-objectification is body shame, or the negative emotions that arise from the belief that one's body does not meet societal standards of beauty. In turn, body shame may lead an individual to want to disappear (Impett et al., 2005) while in sexual relationships. This desire to disappear may lead women, particularly those who have been sexually abused, to feel that they are powerless to act upon their sexual desires and/or needs. In fact, research has indicated that some women do not negotiate for sexual protection for fear of abandonment and/or further abuse (Wingood & DiClemente, 1997). As a result, some women may learn to silence their own needs, which consequently may result in SRBs.

Research has supported the assertion that body shame may contribute to decreased sexual self-efficacy. That is, women with higher levels of body image self-consciousness have been found to be less sexually assertive (Wiederman, 2000). Moreover, Szymanski and Carr (2007) found that self-objectification led to increased body shame, which in turn contributed to more external sexual control. Based upon the results from these studies, one might expect that decreased sexual self-efficacy might serve as a mediating factor between body shame and SRBs.

Proposed Models

An array of studies have demonstrated a relationship between prior sexual abuse experiences and SRBs in women (Buzi et al., 2003; Brown-Peterside, Ren, Chiasson, Koblin, 2002; Randolph & Mosack, 2006; Sikkema, Hansen, Meade, Kochman, & Fox, 2009; Messman-Moore, Coates, Gaffey, & Johnson, 2008; van Roode, Dickson, Herbison, & Paul, 2009; Voisin, 2005), although other studies have not (Hamburger et al., 2004; Littleton, Radecki Breitkopf, Berenson, 2007; Myers et al., 2006; Simoni, Sehgal, & Walters, 2004). Therefore, it is essential to understand the pathways in which prior sexual abuse experiences lead to SRBs, in order for helping professionals to intervene so that women may be empowered to recognize their own sense of agency within sexual and/or romantic relationships.

A variety of factors have been proposed to mediate the relationship between sexual abuse and SRBs. For example, injection drug use (Simoni et al., 2004) has demonstrated a mediational effect between sexual abuse and SRBs. Although these mediating factors may help elucidate the relationship between sexual abuse and SRBs, research has yet to distinguish how self-objectification may mediate the relationship between sexual abuse and SRBs.

Objectification theory (Fredrickson and Roberts, 1997) may provide greater understanding in terms of how women who have survived sexual abuse may begin to engage in SRBs. Objectification theory posits that women are sexually objectified on a daily basis. That is, women are reduced to a uni-dimensional representation of themselves, whereby their bodies are separated out from their persons for the benefit of others. Consequently, women may learn to internalize these sexually objectifying

experiences and begin to self-objectify, thereby viewing and treating themselves as sexual objects (Fredrickson & Roberts, 1997).

While women are objectified daily through indirect measures (e.g., media images, objectifying gaze, sexualized comments), the experience of sexual abuse may be considered a direct objectification experience, as women are literally reduced to their sexual components for the perpetrator's sense of power and control and sexual gratification. Thus, if women internalize the indirect experiences of sexual objectification, it is also likely that survivors of sexual abuse may internalize more direct forms of sexual abuse and begin to self-objectify.

Self-objectification has been found to contribute to a variety of psychological sequelae, including depression (Grabe, Hyde, & Lindberg, 2007; Haines et al., 2008; Harrison & Fredrickson, 2003; Muehlenkamp & Saris-Baglama, 2002; Muehlenkamp et al., 2005; Tiggeman & Kuring, 2004), eating disorders (Calogero, 2009; Calogero et al., 2005; Moradi et al., 2005; Muehlenkamp & Saris-Baglama, 2002; Noll & Fredrickson, 1998; Piran & Cormier, 2005), and decreased sexual functioning (Sanchez & Kiefer, 2007; Steer & Tiggeman, 2008). Moreover, research has suggested that self-objectification contributes to SRBs (Hirschman et al., 2006; Impett et al., 2006), although this relationship is not direct in nature. For example, Impett et al. (2006) found that decreased sexual self-efficacy mediated the relationship between self-objectification and SRBs, specifically sexually protective measures (i.e., contraceptive use). That is, higher levels of self-objectification led to decreased sexual self-efficacy, which then predicted decreased rates of contraceptive use. These findings suggest that the importance of

uncovering the pathways which lead women who have been sexually abused and who self-objectify to engage in SRBs.

Prior research has provided evidence that three areas are potentially impacted by childhood sexual abuse and self-objectification: sexual self-efficacy, alexithymia, and body shame. Thus, two models are proposed in order to see which model better accounts for the relationship between CSA and SRBs. For Model A, it is proposed that the sexually objectifying experience of CSA may become internalized, which may result in self-objectification among women. In turn, self-objectification may contribute to SRBs via alexithymia, body shame, and decreased sexual self-efficacy. In addition, it is theorized that body shame would result in decreased sexual self-efficacy, which would in turn contribute to SRBs (see Figure 2). For Model B, it is hypothesized that self-objectification would partially mediate the relationship between CSA and alexithymia, decreased sexual self-efficacy, and body shame. In turn, these variables would predict SRBs among women. Again, it is hypothesized that decreased sexual self-efficacy would mediate the relationship between body shame and SRBs among women (see Figure 3).

The purpose of this research proposal is three-fold: (1) to discover if self-objectification mediates the relationship between CSA and SRBs; (2) to uncover the additional pathways through which self-objectification leads to SRBs (i.e., decreased sexual self-efficacy, alexithymia, and body shame); and (3) to discover which of the aforementioned models better accounts for the relationship between sexual abuse and SRBs among women.

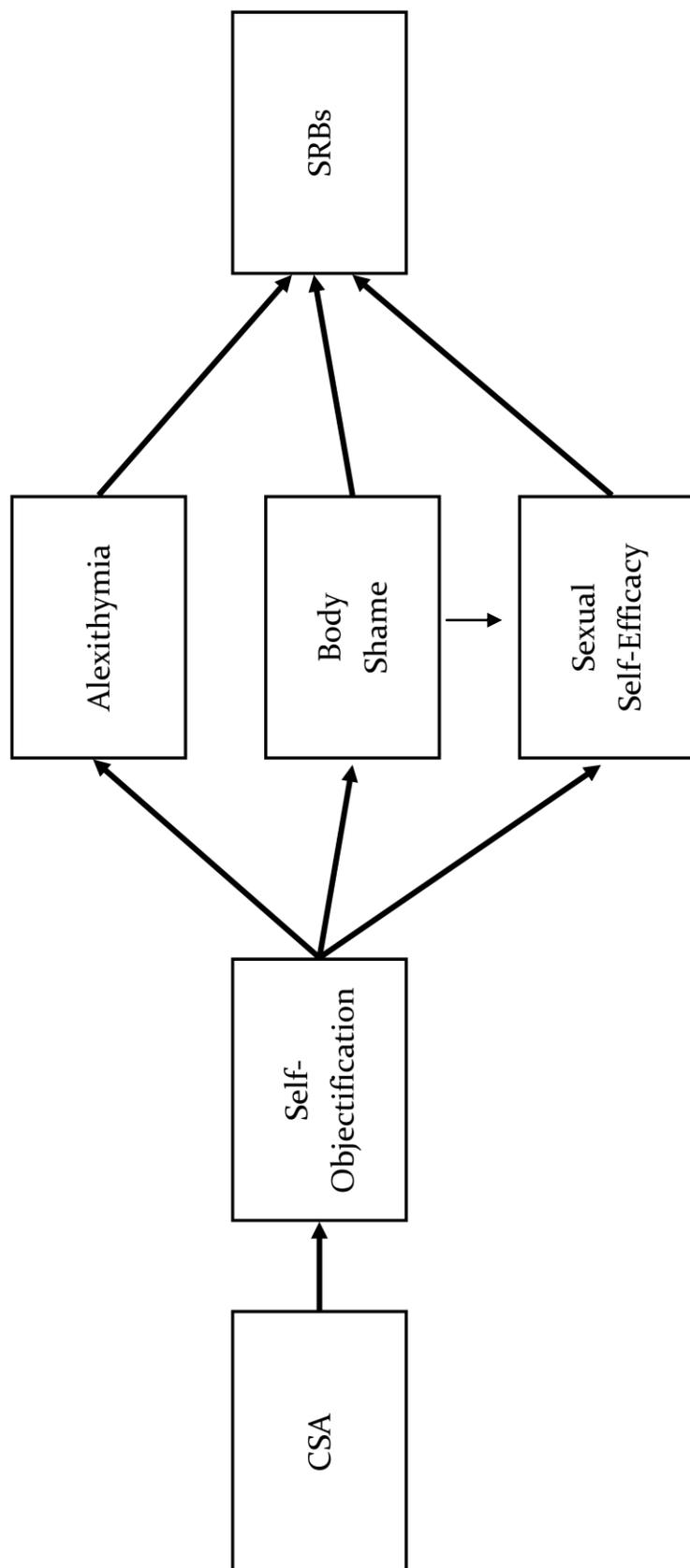


Figure 2. Model A: Fully Mediated Model.

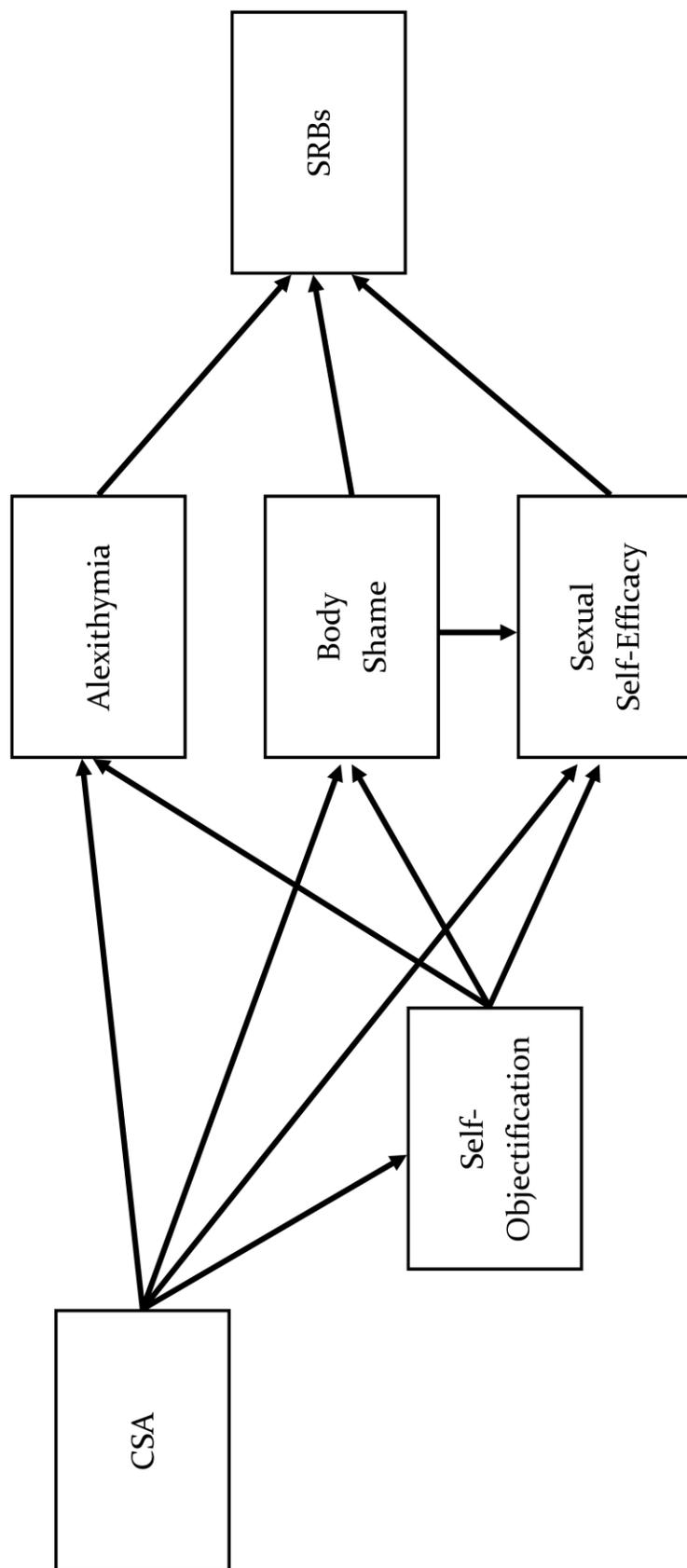


Figure 3. Model B: Partially Mediated Model.

References

- Adams, C. J. (1993). "I just raped my wife! What are you going to do about it, Pastor?"
The church and sexual violence. In E. Buchwald, P. R., Fletcher, & M. Roth
(Eds.), *Transforming a Rape Culture* (pp. 59-86). Minneapolis: Milkweed
Editions.
- Allsworth, J., Anand, M., Redding, C. A., & Peipert, J. E. (2009). Physical and sexual
violence and incident sexually transmitted infections. *Journal of Women's Health*,
18(4), 529-534. doi: 10.1089/jwh.2007.0757
- Alvarez, J., Pavao, J., Mack, K. P., Chow, J. M., Baumrind, N., & Kimerling, R. (2009).
Lifetime interpersonal violence and self-reported Chlamydia trachomatis
diagnosis among California women. *Journal of Women's Health*, *18*(1), 57-63.
doi: 10.1089/jwh.2007.0665
- Andrews, B. (1995). Bodily shame as a mediator between abusive experiences and
depression. *Journal of Abnormal Psychology*, *104*(2), 277-285. doi:
10.1037/0021-843X.104.2.277
- Andrews, B. (1997). Bodily shame in relation to abuse in childhood and bulimia: A
preliminary investigation. *British Journal of Clinical Psychology*, *36*(1), 41-49.
- Augustus-Horvath, C. L., & Tylka, T. L. (2009). A test and extension of objectification
theory as it predicts disordered eating: Does women's age matter? *Journal of
Counseling Psychology*, *56*(2), 253-265. doi: 10.1037/a0014637
- Bartky, S. L. (1990) *Femininity and domination: Studies in the phenomenology of
oppression*. New York: Routledge.

- Berenbaum, H. (1996). Childhood abuse, alexithymia, and personality disorder. *Journal of Psychosomatic Research, 41*(6), 585-595. doi: 10.1016/S0022-3999(96)00225-5
- Brezo, J., Paris, J., Vitaro, F., Hebert, M., Tremblay, R., & Turecki, G. (2008). Predicting suicide attempts in young adults with histories of childhood sexual abuse. *British Journal of Psychiatry, 193*(2), 134-139. doi: 10.1192/bjp.bp.107.037994
- Brown-Peterside, P., Ren, L., Chiasson, M., & Koblin, B. A. (2002). Double trouble: Violent and non-violent traumas among women at sexual risk of HIV infection. *Women & Health, 36*(3), 51-64.
- Burnette, M. L., Ilgen, M., Frayne, S. M., Luca, E., Mayo, J., & Weitlauf, J. C. (2008). Violence perpetration and childhood abuse among men and women in substance abuse treatment. *Journal of Substance Abuse Treatment, 35*(2), 217-222. doi: 10.1016/j.jsat.2007.10.002
- Buzi, R. S., Tortolero, S. R., Roberts, R. E., Ross, M. W. Addy, R. C., & Markham, C. M. (2003). The impact of a history of sexual abuse on high-risk sexual behaviors among females attending alternative schools. *Adolescence, 38*(152), 595-605.
- Calogero, R. M. (2009). Objectification processes and disordered eating in British women and men. *Journal of Health Psychology, 14*(3), 394-402. doi: 10.1177/1359105309102192
- Calogero, R. M., Davis, W. N., & Thompson, J. K. (2005). The role of self-objectification in the experience of women with eating disorders. *Sex Roles, 52*(1/2), 43-50. doi: 10.1007/s11199-005-1192-9

- Campbell, J. C., & Soeken, K. (1999). Forced sex and intimate partner violence: Effects on women's health. *Violence Against Women, 5*(9), 1017-1035. doi: 10.1177/10778019922181608
- Cann, A., Siegfried, W. D., & Pearce, L. (1981). Forced attention to specific applicant qualifications: Impact on physical attractiveness and sex of applicant biases. *Personnel Psychology, 34*(1), 65-75.
- Cash, T. F., Gillens, B., & Burns, S. D. (1977). Sexism and "beautyism" in personnel consultant decision making. *Journal of Applied Psychology, 62*(3), 301-310. doi: 10.1037/0021-9010.62.3.301
- Cecil, H., & Matson, S. C. (2001). Psychological functioning and family discord among African-American adolescent females with and without a history of childhood sexual abuse. *Child Abuse & Neglect, 25*(7), 973-988.
- Cheasty, M., Clare, A. W., & Collins, C. (2002). Child sexual abuse: A predictor of persistent depression in adult rape and sexual assault victims. *Journal of Mental Health, 11*(1), 79-84. doi: 10.1080/096382301200041489
- Conradt, M., Dierk, J., Schlumberger, P., Rauh, E., Hebebrand, J., & Rief, W. (2007). Development of the Weight- and Body-Related Shame and Guilt Scale (WEB-SG) in a nonclinical sample of obese individuals. *Journal of Personality Assessment, 88*(3), 317-327.
- Cooper, M. L., Wood, P. K., Orcutt, H. K., & Albino, A. (2003). Personality and the predisposition to engage in risky or problem behaviors during adolescence. *Journal of Personality & Social Psychology, 84*(2), 390-410. doi: 10.1037/0022-3514.84.2.390

- Coy, M. (2009). This body which is not mine: The notion of the habit body, prostitution, and (dis)embodiment. *Feminist Theory, 10*(1), 61-75. DOI: 10.1177/1464700108100392.
- Creamer, M., Burgess, P., & McFarlane, A. C. (2001). Post-traumatic stress disorder: Findings from the Australian National Survey of Mental Health and Well-being. *Psychological Medicine, 21*(7), 1237-1247. doi: 10.1017/S0033291701004287
- de Beauvoir, S. (1952). *The second sex*. New York: Knopf.
- Downs, D. M., James, S., & Cowan, G. (2006). Body objectification, self-esteem, and relationship satisfaction: A comparison of exotic dancers and college women. *Sex Roles, 54*(11-12), 745-752. doi: 10.1007/s11199-006-9042-y
- Eisenberg, M., Neumark-Sztainer, D., & Lust, K. (2005). Weight-related issues and high-risk sexual behaviors among college students. *Journal of American College Health, 54*(2), 95-101.
- Elze, D. E., Auslander, W. McMillen, C., Edmond, T., & Thompson, R. (2001). Untangling the impact of sexual abuse on HIV risk behaviors among youth in foster care. *AIDS Education and Prevention, 13*(4), 377-389. doi: 10.1521/aeap.13.4.377.21427
- Evren, C., Evren, B., Dalbudak, E., Ozcelik, B., & Oncu, F. (2009). Childhood abuse and neglect as a risk factor for alexithymia in adult male substance dependent inpatients. *Journal of Psychoactive Drugs, 41*(1), 85-92.
- Finkelhor, D., & Browne, A. (1985). The traumatic impact of child sexual abuse: A conceptualization. *American Journal of Orthopsychiatry, 55*(4), 530-541.

- Fisher, B. S., Cullen, F. T., & Turner, M. G. (2000). The sexual victimization of college women. Research report. Retrieved February 3, 2010 from <http://www.ncjrs.gov/pdffiles1/nij/182369.pdf>
- Fredrickson, B. L., & Roberts, T. (1997). Objectification theory: Toward understanding women's lived experiences and mental health risks. *Psychology of Women Quarterly*, 21(2), 173-206. doi: 10.1111/j.1471-6402.1997.tb00108.x
- Gibson, R., & Hartshorne, T. S. (1996). Childhood sexual abuse and adult loneliness and network orientation. *Child Abuse & Neglect*, 20(11), 1087-1093.
- Gilligan, C. (1993). *In a different voice*. Cambridge: Harvard University Press.
- Grabe, S., Hyde, J. S., & Lindberg, S. M. (2007). Body objectification and depression in adolescents: The role of gender, shame, and rumination. *Psychology of Women Quarterly*, 31(2), 164-175. doi: 10.1111/j.1471-6402.2007.00350.x
- Grassi-Oliveira, R., & Stein, L. M. (2008). Childhood maltreatment associated with PTSD and emotional distress in low-income adults: The burden of neglect. *Child Abuse & Neglect*, 32(12), 1089-1094. doi: 10.1016/j.chiabu.2008.05.008
- Greenleaf, C. (2005). Self-objectification among physically active women. *Sex Roles*, 52(1/2), 51-62. doi: 10.1007/s11199-005-1193-8
- Haines, M., Erchull, M., Liss, M., Turner, D., Nelson, J., Ramsey, L., et al. (2008). Predictors and effects of self-objectification in lesbians. *Psychology of Women Quarterly*, 32(2), 181-187. doi: 10.1111/j.1471-6402.2008.00422.x
- Hamburger, M. E., Moore, J., Koenig, L. J., Vlahov, D., Schoenbaum, E. E., Schuman, P., et al. (2004). Persistence of inconsistent condom use: Relation to abuse history

and HIV serostatus. *AIDS and Behavior*, 8(3), 333-344. doi:
10.1023/B:AIBE.0000044080.04397.97

Harrison, K., & Fredrickson, B. (2003). Women's sports media, self-objectification, and mental health in Black and White adolescent females. *Journal of Communication*, 53(2), 216-232. doi: 10.1111/j.1460-2466.2003.tb02587.x

Hendrick, C. L., & Reddy, D. M. (2007). *Predictors of sexual risk behavior in women* [Abstract]. Fort Wayne, Indiana: Midwestern Psychological Association.

Herman, J. (1997). *Trauma and recovery*. New York: Basic Books.

Hill, M. S. (2003). Examining objectification theory: Sexual objectification's link with self-objectification. *Conference Abstract*: Washington, District of Columbia, US: American Psychological Association.

Hill, M. S., & Fischer, A. R. (2008). Examining objectification theory: Lesbian and heterosexual women's experiences with sexual- and self-objectification. *Counseling Psychologist*, 36(5), 745-776. Retrieved February 4, 2010 from <http://dx.doi.org/10.1177/0011000007301669>

Hirschman, C., Impett, E. A., & Schooler, D. (2006). Dis/embodyed voices: What late-adolescent girls can teach us about objectification and sexuality. *Sexuality Research & Social Policy: Journal of National Sexuality Research Center*, 3(4), 8-20. doi: 10.1525/srsp.2006.3.4.8

Holzer, S. R., Uppala, S., Wonderlich, S. A., Crosby, R. D., & Simonich, H. (2008). Mediation significance of PTSD in the relationship of sexual trauma and eating disorders. *Child Abuse & Neglect*, 32(5), 561-566. doi:
10.1016/j.chiabu.2007.07.011

- Impett, E. A., Schooler, D., & Tolman, D. L. (2006). To be seen and not heard: Femininity Ideology and Adolescent Girls' Sexual Health. *Archives of Sexual Behavior, 35*(2), 131-144. doi:10.1007/s10508-005-9016-0
- Jacobson, M. B., & Popovich, P. M. (1983). Victim attractiveness and perceptions of responsibility in an ambiguous rape case. *Psychology of Women Quarterly, 8*(1), 100-104.
- James, J., & Meyerding, J. (1977). Early sexual experiences as a factor in prostitution. *Archives of Sexual Behavior, 7*(1), 31-42. doi: 10.1007/BF01541896
- Johnsen, L. W., & Harlow, L. L. (1996). Childhood sexual abuse linked with adult substance use, victimization, and AIDS risk. *AIDS Education and Prevention, 8*(1), 44-57.
- Kozee, H. B., Tylka, T. L., Augustus-Horvath, C. L., & Denchik, A. (2007). Development and psychometric evaluation of the interpersonal sexual objectification scale. *Psychology of Women Quarterly, 31*(2), 176-189. doi: 10.1111/j.1471-6402.2007.00351.x
- Langlois, J. H., Kalakanis, L., Rubenstein, A. J., Larson, A., & Hallam, M. (2000). Maxims or myths of beauty? A meta-analytic and theoretical review. *Psychological Bulletin, 126*(3), 390-423. doi: 10.1037/0033-2909.126.3.390
- Lemieux, S. R., & Byers, S. E. (2008). The sexual well-being of women who have experienced child sexual abuse. *Psychology of Women Quarterly, 32*(2), 126-144. doi: 10.1111/j.1471-6402.2008.00418.x
- Levine, P. A., & Fredrick, A. (1997). *Waking the tiger: Healing trauma*. Berkeley: North Atlantic Books.

- Lindberg, S. M., Grabe, S., & Shibley Hyde, J. (2007). Gender, pubertal development, and peer sexual harassment predict objectified body consciousness in early adolescence. *Journal of Research on Adolescence, 17*(4), 723-742.
- Littleton, H., Radecki Breitkopf, C., & Berenson, A. (2007). Sexual and physical abuse history and adult sexual risk behaviors: Relationships among women and potential mediators. *Child Abuse & Neglect, 31*(7), 757-768. doi: 10.1016/j.chiabu.2006.12.015
- Livingston, J. A., Testa, M., & VanZile-Tamsen, C. (2007). The reciprocal relationship between sexual victimization and sexual assertiveness. *Violence Against Women, 13*(3), 298-313.
- Logio, K. A. (2003). Gender, race, childhood abuse, and body image among adolescents. *Violence Against Women, 9*(8), 931-954.
- Mann, L. S., & Wise, T. N. (1995). Alexithymia, affect recognition, and five factors of personality in substance abusers. *Perceptual & Motor Skills, 81*(1), 35-41.
- McKinley, N. M., & Hyde, J. S. (1996). The objectified body consciousness scale: Development and validation. *Psychology of Women Quarterly, 20*(2), 181-215. doi: 10.1111/j.1471-6402.1996.tb00467.x
- Mercurio, A., & Landry, L. (2008). Self-objectification and well-being: The impact of self-objectification on women's overall sense of self-worth and life satisfaction. *Sex Roles, 58*(7/8), 458-466. doi: 10.1007/s11199-007-9357-3
- Merleau-Ponty, M. (1962). *Phenomenology of Perception*. London: Routledge.
- Messman-Moore, T. L., Coates, A. A., Gaffey, K. J., & Johnson, C. F. (2008). Sexuality, substance use, and susceptibility to victimization: Risk for rape and sexual

- coercion in a prospective study of college women. *Journal of Interpersonal Violence*, 23(12), 1730-1746. doi: 10.1177/0886260508314336
- Miller, M. (1999). A model to explain the relationship between sexual abuse and HIV risk among women. *AIDS Care*, 11(1), 3-20. doi: 10.1080/09540129948162
- Miller, P., & Biele, N. (1993). Twenty years later: The unfinished revolution, In E. Buchwald, P. R., Fletcher, & M. Roth (Eds.), *Transforming a Rape Culture*, (pp. 49-54). Minneapolis: Milkweed Editions.
- Milligan, R. J., & Andrews, B. (2005). Suicidal and other self-harming behavior in offender women: The role of shame, anger, and childhood abuse. *Legal and Criminological Psychology*, 10(1), 13-25. doi: 10.1348/135532504X15439
- Moradi, B., Dirks, D., & Matteson, A. V. (2005). Roles of sexual objectification experiences and internalization of standards of beauty in eating disorder symptomology: A test and extension of objectification theory. *Journal of Counseling Psychology*, 52(3), 420-428. doi: 10.1037/0022-0167.52.3.420
- Moradi, B., & Huang, Y. (2008). Objectification theory and psychology of women: A decade of advances and future directions. *Psychology of Women Quarterly*, 32(4), 377-398. doi: 10.1111/j.1471-6402.2008.00452.x
- Muehlenkamp, J. J., & Saris-Baglama, R. N. (2002). Self-objectification and its psychological outcomes for college women. *Psychology of Women Quarterly*, 26(4), 371-379.
- Muehlenkamp, J. J., Swanson, J. D., & Brausch, A. M. (2005). Self-objectification, risk taking, and self-harm in college women. *Psychology of Women Quarterly*, 29(1), 24-32. doi: 10.1111/j.1471-6402.2005.00164.x

- Myers, H. F., Wyatt, G. E., Burns Loeb, T., Vargas Carmona, J., Warda, U., Longshore, D., Rivkin, I., Chin, D., & Liu, H. (2006). Severity of child sexual abuse, post-traumatic stress and risky sexual behaviors among HIV-positive women. *AIDS and Behavior, 10*(2), 191-199. doi: 10.1007/s10461-005-9054-6
- Noll, S., & Fredrickson, B. L. (1998). A mediational model linking self-objectification, body shame, and disordered eating. *Psychology of Women Quarterly, 22*(4), 623-636.
- O'Hare, T., & Sherrer, M. V. (2009). Impact of the most frequently reported traumatic events on community mental health clients. *Journal of Human Behavior in the Social Environment, 19*(2), 186-195. doi: 10.1080/10911350802687158
- Ohene, S., Halcon, L., Ireland, M., Carr, P. & McNeely, C. (2005). Sexual abuse history, risk behavior, and sexual transmitted diseases: The impact of age at abuse. *Sexually Transmitted Diseases, 32*(6), 358-363. doi: 10.1097/01.olq.0000154505.68167.d1
- Paivio, S. C., & McCulloch, C. R. (2004). Alexithymia as a mediator between childhood trauma and self-injurious behaviors. *Child Abuse & Neglect, 28*(3), 339-354. doi: 10.1016/j.chiabu.2003.11.018
- Piran, N., & Cormier, H. C. (2005). The social construction of women and disordered eating patterns. *Journal of Counseling Psychology, 52*(4), 549-558. doi: 10.1037/0022-0167.52.4.549
- Randolph, M. E., & Mosack, K. E. (2006). Factors mediating the effects of childhood sexual abuse on risky sexual behavior among college women. *Journal of Psychology & Human Sexuality, 18*(1), 23-41. doi: 10.1300/JO56v18n01_02

- Rape, Abuse, and Incest National Network [RAINN]. (2008). Retrieved June 28th, 2009 from <http://www.rainn.org/get-information/statistics/frequency-of-sexual-assault> and <http://www.rainn.org/get-information/types-of-sexual-assault>.
- Reiland, S., & Lauterbach, D. (2008). Effects of trauma and religiosity on self-esteem. *Psychological Reports, 102*(3), 779-790. doi: 10.2466/PR0.102.3.779-790
- Sanchez, D., & Kiefer, A. (2007). Body concerns in and out of the bedroom: Implications for sexual pleasure and problems. *Archives of Sexual Behavior, 36*(6), 808-820. doi: 10.1007/s10508-007-9205-0.
- Scher, D., & Twaite, J. A. (1999). The relationship between child sexual abuse and alexithymic symptoms in a population of recovering adult substance users. *Journal of Child Sexual Abuse, 8*(2), 25-40. doi: 10.1300/J070v08n02
- Schneider, R., Burnette, M., & Timko, C. (2008). History of physical or sexual abuse and participation in 12-step self-help groups. *American Journal of Drug & Alcohol Abuse, 34*(5), 617-625. doi: 10.1080/00952990802308148
- Schooler, D., Ward, M. L., Merriwether, A., & Caruthers, A. (2005). Cycles of shame: Menstrual shame, body shame, and sexual decision-making. *Journal of Sex Research, 42*(4), 324-334.
- Senn, T. E., Carey, M. P., Vanable, P. A., Coury-Doniger, P., & Urban, M. (2007). Characteristics of sexual abuse in childhood and adolescence influence sexual risk behavior in adulthood. *Archives of Sexual Behavior, 36*(5), 637-645. doi: 10.1007/s10508-006-9109-4
- Sikkema, K. J., Hansen, N. B., Meade, C. S., Kochman, A., & Fox, A. M. (2009). Psychosocial predictors of sexual HIV transmission risk behavior among HIV-

- positive adults with a sexual abuse history in childhood. *Archives of Sexual Behavior*, 38(1), 121-134. doi: 10.1007/s10508-007-9238-4
- Silbert, M. D., & Pines, A. M. (1981). Sexual abuse as an antecedent to prostitution. *Child Abuse & Neglect*, 5(4), 407-411. doi: 10.1016/0145-2134(81)90050-8
- Simoni, J. M., Sehgal, S., & Walters, K. L. (2004). Triangle of risk: Urban American Indian women's sexual trauma, injection drug use, and HIV sexual risk behaviors. *AIDS and Behavior*, 8(1), 33-45. doi: 10.1023/B:AIBE.0000017524.40093.6b
- Smith, D. W., Davis, J. L., & Fricker-Elhai, A. E. (2004). How does trauma beget trauma? Cognitions about risk in women with abuse histories. *Child Maltreatment*, 9(3), 292-303. doi: 10.1177/1077559504266524
- Springer, C. (1997). Female adolescents, the experience of violence, and the meaning of the body. *Clinical Social Work Journal*, 25(3), 281-296.
- Steel, J. L., & Herlitz, C. A. (2005). The association between childhood and adolescent sexual abuse and proxies for sexual risk behavior: A random sample of the general population of Sweden. *Child Abuse & Neglect*, 29(10), 1141-1153. doi: 10.1016/j.chiabu.2004.10.015
- Steer, A., & Tiggeman, M. (2008). The role of self-objectification in women's sexual functioning. *Journal of Social and Clinical Psychology*, 27(3), 205-225.
- Szymanski, D. M., & Carr, E. A. (2007). *Roles of self-objectification and sexual victimization in women's psychosexual adjustment. Conference Abstract: American Psychological Association.*

- Szymanski, D. M., & Henning, S. L. (2007). The role of self-objectification in women's depression: A test of objectification theory. *Sex Roles, 56*(1/2), 45-53. doi: 10.1007/s11199-006-9147-3
- Testa, M., VanZile-Tamsen, C., Livingston, J. A., & Koss, M. P. (2004). Assessing women's experiences of sexual aggression using the sexual experiences survey: Evidence for validity and implications for research. *Psychology of Women Quarterly, 28*(3), 256-265. doi: 10.1111/j.1471-6402.2004.00143.x
- Tiggeman, M., & Kuring, J. K. (2004). The role of body objectification in disordered eating and depressed mood. *British Journal of Clinical Psychology, 43*(3), 299-311. doi: 10.1348/0144665031752925
- Tolman, D. L. (2002). *Dilemmas of desire: Teenage girls talk about sexuality*. Cambridge, MA: Harvard University Press.
- Tripp, M. M., & Petrie, T. A. (2001). Sexual abuse and eating disorders: A test of a conceptual model. *Sex Roles: A Journal of Research, 44*(1/2), 17-32.
- Ullman, S. E., & Najdowski, C. J. (2009). Correlates of serious suicidal ideation and attempts in female adult sexual assault survivors. *Suicide & Life-Threatening Behavior, 39*(1), 47-57. doi: 10.1521/suli.2009.39.1.47
- U.S. Department of Justice. (2005). *Bureau of Justice Statistics Bulletin: Criminal Victimization, 2005*. Retrieved May 6th, 2009 from <http://www.ojp.usdoj.gov/bjs/pub/pdf/cv05.pdf>.
- U.S. Department of Justice. (2006). *Bureau of Justice Statistics Bulletin: Criminal Victimization, 2006*. Retrieved June 29th, 2009 from <http://www.rainn.org/pdf-files-and-other-documents/News-Room/press-releases/2006-ncvs-results/NCVS%202006-1.pdf>

- U.S. Department of Justice. (2007). *National Crime Victimization Study 2007*. Retrieved June 28th, 2009 from <http://www.ojp.gov/bjs/pub/pdf/cv07.pdf>
- Van Bruggen, L. K., Runtz, M. Z., & Kadlec, H. (2006). Sexual revictimization: The role of sexual self-esteem and dysfunctional sexual behaviors. *Child Maltreatment, 11*(2), 131-145. doi: 10.1177/1077559505285780
- van der Kolk, B. (1989). The compulsion to repeat the trauma: Re-enactment, revictimization, and masochism. *Psychiatric Clinics of North America, 12*(2), 389-411.
- van Roode, T., Dickson, N., & Herbison. P. (2009). Child sexual abuse and persistence of risky sexual behaviors and negative sexual outcomes over adulthood: Findings from a birth cohort. *The International Journal, 33*(3), 161-172. doi: 0.1016/j.chiabu.2008.09.006
- van Strien, T., & Ouwens, M. A. (2007). Effects of distress, alexithymia, and impulsivity on eating. *Eating Behaviours, 8*(2), 251-257. doi: 10.1016/j.eatbeh.2006.06.004
- Voisin, D. R. (2005). The relationship between violence exposure and HIV sexual risk behaviors: Does gender matter? *American Journal of Orthopsychiatry, 75*(4), 497-506. doi: 10.1037/0002-9432.75.4.497
- Walker, L. E., & Browne, A. (1985). Gender and victimization by intimates. *Journal of Personality, 53*(2), 179-195. doi: 10.1111/1467-6494.ep9044149
- Wenninger, K., & Heiman, J. A. (1999). Relating body image to psychological and sexual functioning in child sexual abuse survivors. *Journal of Traumatic Stress, 11*(3), 543-562. doi: 10.1023/A:1024408830159

- Wesely, J. K. (2002). Growing up sexualized: Issues of power and violence in the lives of female exotic dancers. *Violence Against Women, 8*(10), 1182-1207. doi: 10.1177/107780102320562682
- Wesely, J. K., Allison, M. T., & Schneider, I. E. (2000). The lived body experience of domestic violence survivors: An interrogation of female identity. *Women's Studies International Forum, 23*(2), 211-222. doi: 10.1016/S0277-5395(00)00073-X
- Whealin, J. M., & Jackson, J. L. (2002). Childhood unwanted sexual attention and young women's present self-concept. *Journal of Interpersonal Violence, 17*(8), 854-871.
- Wheeler, K., Greiner, P., & Boulton, M. (2005). Exploring alexithymia, depression, and binge eating in self-reported eating disorders in women. *Perspectives in Psychiatric Care, 41*(3), 114-123. doi: 10.1111/j.1744-6163.2005.00022.x
- Wiederman, M. W. (2000). Women's body image self-consciousness during physical intimacy with a partner. *The Journal of Sex Research, 37*(1), 60-68.
- Wilson, H. W., & Widom, C. S. (2009). Sexually transmitted diseases among adults who had been abused and neglected as children: A 30-year prospective study. *American Journal of Public Health, March 2009 Supplement pS197-S203*, 1-7. doi: 10.2105/AJPH.2007.131599
- Wingood, G. M., & DiClemente, R. J. (1997). The effects of an abusive primary partner on the condom use and sexual negotiation practices of African-American women. *American Journal of Public Health, 87*(6), 1016-1018.
- World Health Organization [WHO]. (2002). Sexual violence. In *World report on violence and health*. Retrieved May 19th, 2009 from http://www.who.int/violence_injury_prevention/violence/global_campaign/en/chap6.pdf

- Wyatt, G. E., Guthrie, D., & Notgrass, C. M. (1992). Differential effects of women's child sexual abuse and subsequent sexual revictimization. *Journal of Consulting and Clinical Psychology, 60*(2), 167-173. doi: 10.1037/0022-006X.60.2.167
- Yackobovitch-Gavan, M., Golan, M., Valevski, A., Kreitler, S., Bachar, E., Lieblich, A., et al. (2009). An integrative quantitative model of factors influencing the course of anorexia nervosa over time. *International Journal of Eating Disorders, 42*(4), 306-317. doi: 10.1002/eat.20624
- Young, L. (1992). Sexual abuse and the problem of embodiment. *Child Abuse & Neglect, 16*(1), 89-100.
- Zeitlin, S. B., McNally, R. J., & Cassiday, K. L. (1993). Alexithymia in victims of sexual assault: An effect of repeated traumatization? *The American Journal of Psychiatry, 150*(4), 661-663.
- Zierler, S., Feingold, L., Laufer, D., Velentgas, P., Kantrowitz-Gordon, I., & Mayer, K. (1991). Adult survivors of childhood sexual abuse and subsequent risk of HIV infection. *American Journal of Public Health, 81*(5), 572-575.
- Zlotnick, C., Shea, M. T., Pearlstein, T., Simpson, E., Costello, E., & Begin, A. (1996). The relationship between dissociative symptoms, alexithymia, impulsivity, sexual abuse, and self-mutilation. *Comprehensive Psychiatry, 37*(1), 12-16. doi: 10.1016/S0010-440X(96)90044-9

CHAPTER 2
THE RELATIONSHIPS AMONG CHILDHOOD SEXUAL ABUSE, SELF-
OBJECTIFICATION, AND SEXUAL RISK BEHAVIORS IN UNDERGRADUATE
WOMEN

Sexual abuse is a widespread and pervasive phenomenon, which largely affects young girls and women. Statistics reveal that approximately one out of six women will experience completed or attempted rape in her lifetime (National Institute of Justice and Centers for Disease Control and Prevention, 1998); however, these estimates do not include young girls who are aged 12 and younger. Thus, these statistics are likely underestimates, suggesting that the experience of sexual abuse may affect more than one out of six women.

The psychosocial ramifications of sexual abuse are staggering. That is, women who have survived sexual abuse have been found to have increased rates of depression (Campbell & Soeken, 1999; Cecil & Matson, 2001; Cheasty et al., 2002; Creamer, Burgess, & McFarlane, 2001); post-traumatic stress disorder (PTSD) (Grassi-Oliveira & Stein, 2008; O'Hare & Sherrer, 2009); substance abuse (Burnette et al., 2008; Schneider, Burnette, & Timko, 2008); suicidal behavior (Brezo et al., 2008; Ullman & Najdowski, 2009); decreased self-esteem (Reiland & Lauterback, 2008); social isolation (Gibson & Hartshorne, 1996; WHO, 2002); eating disorders (Holzer et al., 2008; Yackobovitch-Gavan et al., 2009); and HIV and other sexually transmitted diseases (Allsworth et al., 2009; Alvarez et al., 2009; Voisin, 2005; Wilson & Widom, 2009).

A plethora of research has suggested that women who have survived sexual abuse are at a greater risk for engaging in sexual risk behaviors (SRBs) (Buzi et al., 2003;

Brown-Peterside, Ren, Chiasson, Koblin, 2002; Messman-Moore et al., 2008; Randolph & Mosack, 2006; Sikkema et al., 2009; Steel & Herlitz, 2005; van Roode, Dickson, Herbison, & Paul, 2009; Voisin, 2005; Zierler, Feingold, Laufer, Velentgas, Kantrowitz-Gordon, & Mayer, 1991). SRBs may be defined as unsafe sexual practices (i.e., sexual acts without condoms, having sex under the influence of alcohol or drugs, indiscriminate sexual activity, high numbers of sexual partners, trading sex for money or drugs) that compromise individuals' physical, sexual, and emotional health. Despite the numerous studies suggesting that sexual abuse may contribute to SRBs among women, other research has suggested that sexual abuse and sexual risk behaviors are not related (Hamburger et al., 2004; Littleton, Radecki Breitkopf, & Berenson, 2007; Myers et al., 2006; Simoni, Sehgal, & Walters, 2004). Moreover, Littleton et al. (2007) found that injection drug use mediated the relationship between sexual abuse and SRBs among urban, American Indian women. In addition, Smith, Davis, and Fricker-Elhai (2004) found that impaired perception of risk behavior mediated the relationship between various forms of trauma, including sexual abuse, and various forms of risk behavior, such as substance use, unsafe sexual behavior, and aggressive/illegal behavior. These results suggest that the relationship between sexual abuse and SRBs may not be direct in nature, and that mediating variables may explain the relationship between these two variables.

Although prior research has suggested that the connection between sexual abuse and SRBs may be indirect, research has neglected to examine how the sociocultural context may influence the ways in which women cope with sexual abuse, as well as how these attempts at coping may go awry (i.e., SRBs). One such mediating variable that accounts for the objectifying sociocultural context may be self-objectification.

Objectification theory (Fredrickson & Roberts, 1997) posits that women exist within a sociocultural context where they are routinely sexually objectified. Sexual objectification may occur in both direct (e.g., sexual abuse, sexual harassment) and indirect (e.g., objectifying gaze, media representations of women's bodies) forms. Bartky (1990) stated:

Sexual objectification occurs when a woman's sexual parts or functions are separated from her person, reduced to the status of mere instruments, or else regarded as if they were capable of representing her. To be dealt with in this way is to have one's entire being identified with the body (p. 35).

The experience of sexual abuse is one in which young girls and women are quite literally reduced to their bodies and sexual functioning for the purpose of another, usually a man, to gain power, control, and sexual satisfaction.

Fredrickson and Roberts (1997) espoused the position that the persistent experience of being sexually objectified may lead women to internalize an observer's perspective (i.e., self-objectification), whereby women may re-enact the dynamics of sexual objectification and subsequently sexually objectify themselves, perhaps placing themselves at sexual risk by engaging in SRBs. Self-objectification has been found to result in a variety of emotional and experiential consequences, such as body shame (Augustus-Horvath & Tylka, 2009; Calogero, 2009; Calogero & Thompson, 2009), appearance anxiety (Greenleaf & McGreer, 2006; Harper & Tiggeman, 2008; Monro & Huon, 2005), decreased flow (i.e., the ability of fully engage in a desired task) (Greenleaf, 2005; Szymanski & Henning, 2007), and decreased awareness of internal body states (Muehlenkamp & Saris-Baglama, 2002; Myers & Crowther, 2008). In turn, the emotional consequences of self-objectification have been found to result in depression (Grabe, Hyde, & Lindberg, 2007; Haines, Erchull, Liss, Turner, Nelson, Ramsey et al., 2008; Harrison & Fredrickson, 2003; Muehlenkamp & Saris-Baglama,

2002; Muehlenkamp, Swanson, & Brausch., 2005; Tiggeman & Kuring, 2004); disordered eating behaviors (Calogero, 2009; Calogero, Davis, & Thompson, 2005; Moradi, Dirks, & Matteson, 2005; Muehlenkamp & Saris-Baglama, 2002; Noll & Fredrickson, 1998; Piran & Cormier, 2005); and sexual dysfunction (Sanchez & Kiefer, 2007; Steer & Tiggeman, 2008; Szymanski & Carr, 2007). While there are a plethora of studies examining the consequences of self-objectification, all of these studies have examined how indirect experiences of sexual objectification (e.g., media representations, sexualized comments, objectifying gaze) contribute to self-objectification, which then contributes to the aforementioned outcomes. Thus, research is needed in order to determine if more direct forms of sexual objectification (i.e., sexual abuse) predicts self-objectification and subsequent SRBs among women.

Although the aforementioned studies have associated self-objectification with an array of negative outcomes, to date, only two studies have investigated the relationship between self-objectification and SRBs among young women (Impett et al., 2006; Hirschman et al., 2006). Impett et al. (2006) found that self-objectification and the inability to be authentic in romantic relationships predicted decreased sexual self-efficacy, or the belief that one is unable to assert her/himself during sexual encounters. Decreased sexual self-efficacy contributed to less use of protection during sexual activity among adolescent women. Additionally, in a mixed-methods study, Hirschman et al. (2006) found that adolescents who self-objectified were less likely to talk to their partners about the use of sexual protection. Furthermore, research has suggested that the experience of sexual abuse may also contribute to decreased sexual self-efficacy, which may in turn result in SRBs (Johnsen, & Harlow, 1996; Lemieux & Byers, 2008; Van

Bruggen & Runtz, 2006; Wingood & DiClemente, 1997). These results suggest that both sexual abuse and self-objectification may contribute to SRBs among women; however, the relationship between self-objectification and SRBs may not be direct in nature, such that sexual self-efficacy, as well as other potential mediating variables, may further explain this relationship.

Alexithymia, for example, has been found to result from both sexual abuse (Berenbaum, 1996; Paivio & McCulloch, 2004; Scher & Twaite, 1999; Zeitlin, McNally, & Cassiday, 1993; Zlotnick, Shea, Pearlstein, Simpson, Costello, & Begin, 1996) and self-objectification (Muehlenkamp & Saris-Baglama, 2002). Alexithymia, which literally means “no words for mood” (Zlotnick et al., 1996), is believed to arise as a result of disconnecting from one’s own internal processes after adopting an observer’s perspective of the body (Fredrickson & Roberts, 1997). In adopting an observer’s perspective, an individual may disconnect from and/or find it difficult to ascertain her/his own thoughts and emotions. This is particularly disconcerting within sexual and/or romantic relationships, as individuals may find it difficult to describe, identify, and respect their feelings and needs, thereby engaging in SRBs. Although no research has investigated whether alexithymia results in SRBs among women, research has suggested that alexithymia results in other forms of risk behaviors, such self-mutilation (Paivio & McCulloch, 2004; Zlotnick et al., 1996); substance use (Evren, Evren, Dalbudek, Ozelik, & Oncu, 2009; Mann & Wise, 1995); and disordered eating behaviors (van Strien & Ouwens, 2007; Wheeler, Greiner, & Bouton, 2005). Consequently, alexithymia may mediate the relationship between self-objectification and SRBs.

Body shame has also been found to result from both sexual abuse (Andrews, 1995; Andrews, 1997; Logio, 2003; Tripp & Petrie, 2001; Wenninger & Heiman, 1999; Whealin & Jackson, 2002) and self-objectification (Calogero, 2009; Calogero et al., 2005; Kozee, Tylka, Augustus-Horvath, & Denchik, 2007; Moradi et al., 2005; Noll & Fredrickson, 1998). Research has also suggested that body shame results in SRBs among women (Littleton et al., 2007). That is, body image disturbances have been found to predict inconsistent condom use, multiple sexual partners within the past year, and sexual activity after using drugs or alcohol (Littleton et al., 2007). Schooler, Ward, Merriwether and Caruthers (2005) suggested that body shame may lead young women to wish to disappear, particularly during sexual activities, and this desire may result in SRBs among young women (Cooper, Wood, Orcutt, & Albino, 2003). Thus, body shame may also mediate the relationship between self-objectification and SRBs.

Research has also suggested that body shame may result in decreased sexual self-efficacy among women (Szymanski & Carr, 2007; Wiederman, 2000). Therefore, women who experience body shame may find it difficult to assert their needs during sexual activity, thereby placing themselves at sexual risk (Littleton et al., 2007). Thus, it is also hypothesized that sexual self-efficacy will mediate the relationship between body shame and SRBs among sexually abused women.

The purpose of this study is to develop and test two theoretical models that examine how the experience of sexual abuse may contribute to SRBs among women. For the first model (i.e., Model A), it is predicted that childhood sexual abuse (CSA) may lead women to self-objectify. In turn, self-objectification is hypothesized to contribute to SRBs via alexithymia, body shame, and decreased sexual self-efficacy. Additionally,

decreased sexual self-efficacy is theorized to mediate the relationship between body shame and SRBs among sexually abused women (see Figure 2). Based upon prior research, Model B may be an equally valid model in explaining the relationship between CSA and SRBs in women. In this model, self-objectification may partially mediate the relationship between CSA and alexithymia, body shame, and decreased sexual self-efficacy. In turn, these variables (i.e., alexithymia, body shame, and decreased sexual self-efficacy) are believed to contribute to SRBs among sexually abused women. Again, decreased sexual self-efficacy is hypothesized to mediate the relationship between body shame and SRBs among sexually abused women (see Figure 3).

Methodology

Participants

Eligibility criteria for participating in the study included (1) being 18 years or older; (2) enrolled in a college undergraduate course(s) at a southeastern regional public university; and (3) female sex. College-aged women were surveyed because a national study found that more than half of college-aged women experienced some form of sexual abuse (Fisher, Cullen, & Turner, 2000). On one university campus, Myers (personal communication, 1/15/2010) found that approximately 45 % of women seeking counseling services at a university counseling center had experienced CSA. The results from these studies suggest a large number of college-aged women have experienced sexual abuse.

In addition, research suggests that SRBs among college students is a significant public health concern that may, in fact, be increasing (Pluhar, Fongillo, Stycos, & Dempster-McClain, 2003). A significant portion of college students often use drugs or alcohol prior to or during sexual activity; do not openly communicate about sexual

matters with their partners; have multiple sexual partners; and inconsistently use condoms during vaginal or anal intercourse (Baldwin & Baldwin, 2000; Flannery, Ellington, Votaw, & Schaefer, 2003; Gulette & Lyons, 2006; Lewis, J. E., Malow, & Ireland, 1997; Turchik & Garske, 2009).

This study relied upon a convenience sample of college undergraduate women. That is, participants were recruited through psychology undergraduate courses. Participants received course credit for their participation. Participants viewed an advertisement (see Appendix A) describing the general nature of the study. A sample size of at least 170 students was needed given the model parameters. Kline (2005) suggested:

A desirable goal is to have the ratio of the number of cases to the number of free parameters be 20:1 for structural equation modeling; a 10:1 ratio, however, may be a more realistic target. Thus, a path model with 20 parameters should have a minimum sample size of 200 cases. If the cases/parameter ratio is less than 5:1, the statistical precision of the results may be doubtful (p. 111).

Parameters consist of disturbances of exogenous variables (or variables that are not being predicted, but are predicting other variables), double-headed arrows, direct effects, and the error variances of endogenous (variables being predicted by exogenous or other endogenous variables) variables (Kline, 2005). Model A has a total of 14 parameters, which indicates that a minimum sample size of 140 was needed for that model. Model B, however, has 17 parameters and therefore needed a minimum sample size of 170. Although at least 170 complete data points were needed, a goal of 200 or more participants with valid data points is a general goal, as this is considered a large sample size within structural equation modeling (SEM) research (Kline, 2005).

A total of 556 undergraduate women from a large, Southeastern university participated in this study. The mean age of participants was 20.22 ($SD = 4.53$), and they

were ethnically (52 Asian/Pacific Islander; 239 Black/African American; 171 White; 5 East Indian; 37 Hispanic/Latina; 9 Middle Eastern; 39 Multiracial; 2 Native American; 1 Other [West Indian]; 1 did not respond) and spiritually diverse (59 Agnostic; 22 Atheist; 9 Buddhist/Taoist; 100 Christian/Catholic; 214 Christian/Other; 74 Christian/Protestant; 10 Hindu; 4 Jewish; 12 Muslim/Islam; 46 Spiritual/Not Religious; 1 Wiccan/Pagan; and 5 did not reply). In addition, participants were diverse in terms of their grade level (251 freshman; 150 sophomore; 98 junior; 54 senior; and 3 did not respond). Participants largely identified as heterosexual (4 lesbian/gay; 518 straight/heterosexual; 27 bisexual; 2 pan-sexual/omni-sexual; 1 questioning; and 4 did not provide an answer). In terms of primary caretaker's highest level of education, 29 participants stated that their primary guardian had some high school; 96 high school diploma; 43 associates degree; 126 some college; 149 college degree; 80 master's degree; 27 doctoral degree; 35 post-doctoral degree; and 1 did not respond. The majority of participants were single (295 single; 221 single, but in a monogamous dating relationship; 11 single, but in a non-monogamous dating relationship), whereas 26 were married/partnered; 2 separated from partner/spouse; and 1 divorced).

The majority of participants reported that they did not use contraceptives (83.3 %). Among those who did report using contraceptives, a variety of methods were used (28.1 % abstinence; 48.9 % condoms; 2.7 % spermicide; 32.7 % birth control pills; 2.5 % vaginal ring; 1.3 % birth control patch; 4 % birth control shot; 2 % IUD; 17.3 % withdrawal; .4 % rhythm method; .4 % sterilization; .4 % other). In terms of the age of first consensual sexual experience, 144 reported never having had sex; 5 had sex at age 12; 11 at 13; 33 at 14; 71 at 15; 88 at 16; and 204 were 17 or older. On average,

participants had 1.65 sexual partners within the year ($SD = 2.11$). The majority of participants had never experienced pregnancy ($n = 493$), while 46 had one prior pregnancy; 6 had two or more prior pregnancies; 11 had three or more prior pregnancies. Among those who had been pregnant, 21 gave birth to one child; 6 gave birth to 2 children; 2 gave birth to 3 children; and 3 gave birth to 4 or more.

Procedure

Participants were recruited via an experiment management system used to manage the psychology undergraduate research pool. Participants received a general description of the study (see Appendix A). Students interested in participating were directed to www.surveymonkey.com/selfobjectification, whereby they gave voluntary consent (i.e., informed consent—See Appendix B) prior to participating in the study. Consent was given by selecting the “next” button at the bottom of the informed consent page. Participants were then directed to complete the online survey. Online surveys offer benefits when querying individuals about sensitive topics, such as sexual abuse, as it affords them greater anonymity (Wood, Nosko, Desmarais, Ross, & Irvine, 2006). Additionally, research has indicated that because of the anonymity provided by online surveys, the results are less affected by social desirability (Joinson, 1999; Richman, Kiesler, Weisband, & Drasgow, 1999). Due to the sensitive nature of this topic, at the bottom of every page on the survey, students were given the choice to discontinue the survey if they experienced emotional distress. Participants were provided a list of counseling and health care resources, as well as the name and contact information of the principal investigator. Upon completion of the survey, all participants received a thank you note, in addition to a unique identification number.

The following measures were included in the online survey: The Sexual Abuse subscale of the Childhood Trauma Questionnaire (Bernstein et al., 2003); the Body Surveillance subscale of the Objectified Body Consciousness scale (McKinley & Hyde, 1996); The Contraceptive Self-Efficacy Scale (Levinson, 1986); the Body Shame subscale of the Objectified Body Consciousness scale (McKinley & Hyde, 1996); the Toronto Alexithymia Scale-20 (Bagby, Parker, & Taylor, 1994); and the Sexual Risk Survey (Turchik & Garske, 2009).

Measures

Sexual abuse. The Childhood Trauma Questionnaire ([CTQ]; Bernstein et al., 2003) was used to assess experiences of childhood sexual abuse. The CTQ is a retrospective, 28 item, five-factor measure that assesses for various types of childhood abuse (i.e., physical abuse, emotional abuse, sexual abuse, physical neglect, and emotional neglect). Each subscale consists of five questions each, and there are also three validity items that assess minimization and denial. For the purposes of this study, only the sexual abuse subscale was used. Bernstein et al. (2003) defined sexual abuse as “sexual contact or conduct between a child younger than 18 years of age and an adult or older person” (p. 175). Respondents are asked to rate the frequency of these abuse incidents on a 5 point Likert scale (1 = Never True; 2 = Rarely True; 3 = Sometimes True; 4 = Often True; 5 = Very Often True). The items were then totaled to achieve a subscale score, ranging from 5 (no history of abuse) to 25 (extreme history of abuse). The sexual abuse subscale has demonstrated internal consistency ($\alpha = .92$ to $.95$); criterion related validity ($r = .75$), whereby participants’ scores on the subscales were used to predict therapists’ ratings; and confirmatory factor analyses revealed goodness of fit between the

hypothesized latent variable and factor loadings, thereby determining that the sexual abuse subscale is a valid measure of the construct (Bernstein et al., 2003). Within this study, the Sexual Abuse subscale demonstrated excellent internal consistency ($\alpha = .90$).

Self-objectification. The Body Surveillance subscale of the Objectified Body Consciousness scale (McKinley & Hyde, 1996), normed on college women, is typically used to measure self-objectification. Body surveillance is defined as “the extent to which women self-objectify by watching their bodies and thinking in terms of how their bodies appear to others rather than how they feel” (Tylka & Hill, 2004, p. 723). The Body Surveillance subscale consists of eight items that are rated on a 1 (strongly disagree) to 7 (strongly agree) Likert scale. Higher scores on the measure indicate higher levels of body surveillance (i.e., self-objectification). An example item includes “I think more about how my body feels than how my body looks” (reverse scored). Research has demonstrated strong psychometric properties of this scale: internal consistency ($\alpha = .89$), test-retest reliability ($r = .79$), and convergent validity with the Public and Private Self-Consciousness Scales ($r = .73$). Within this study, the Body Surveillance subscale demonstrated adequate internal consistency ($\alpha = .79$).

Alexithymia. The Toronto Alexithymia Scale-20 (TAS-20) is a 20 item, self-report measure (Bagby et al., 1994). This measure assesses the extent to which people have difficulty identifying and verbalizing their emotions, as well as the tendency to focus one’s attention externally. Items are rated on a 1 (strongly disagree) to 5 (strongly agree) Likert scale. The TAS-20 has cut-off scores, whereby scores equal to or less than 51 are indicative of no alexithymia, scores between 52 and 60 indicate possible alexithymia, and scores equal to or greater than 61 are indicative of alexithymia. The

TAS-20 is composed of three subscales: difficulty describing feelings, difficulty identifying feelings, and externally oriented thinking. All three subscales are congruent with the alexithymia construct (Bagby et al., 1994). Examples of items include “I am often confused by what emotion I am feeling” and “It is difficult for me to find the right words for my feelings.” The TAS-20 has demonstrated good internal consistency ($\alpha = .81$), test-retest reliability ($r = .77$, over a 3 week period), and construct and criterion-related validity utilizing confirmatory factor analysis (Taylor, Bagby, Ryan, Parker, Doody, & Keefe, 1988). Alpha for this study was .89.

Body shame. The Body Shame subscale of the Objectified Body Consciousness scale (McKinley & Hyde, 1996), normed on college women, is an eight item measure to distinguish the extent to which a woman feels that she is an inadequate person if she does not conform to societal expectations of her body. Items on the Body Shame subscale include “When I’m not the size I think I should be, I feel ashamed,” and are rated on a 1 (strongly disagree) to 7 (strongly agree) Likert scale; higher scores suggest greater body shame. This subscale has demonstrated internal consistency ($\alpha = .75$), test-retest reliability ($r = .79$), and divergent validity from the Body Esteem Scale ($r = -.51$). Within this study, the Body Shame subscale demonstrated good internal consistency ($\alpha = .85$).

Sexual self-efficacy. Impett et al. (2006) assessed the relationship between self-objectification, sexual self-efficacy, and sexual health among adolescent women. In doing so, they utilized a modified version of Levinson’s (1986) Contraceptive Self-Efficacy Scale--CSE in order to “assess the strengths of a girl’s conviction that she can act upon her own sexual needs in a relationship, such as enjoying sex, refusing unwanted sex, and insisting on the use of protection” (Impett et al., 2006). The CSE has been tested

on a college population (Heinrich, 1993), as well as clinical and school samples (Levinson, Wan, & Beamer, 1998). The Modified CSE consists of 15 questions and 4 factors (i.e., conscious acceptance of sexual activity by planning for it, assumption of responsibility for the direction of sexual activity and for using contraception, assertiveness in preventing sexual intercourse in an involved situation, and strong feelings of sexual arousal) regarding sexual and contraceptive self-efficacy, and asks participants to rate themselves on a 1 (not at all true of me) to 5 (completely true of me) scale; higher scores indicate higher levels of sexual self-efficacy. Total scores on the CSE have been shown to be the best predictor of contraceptive use (Levinson et al., 1998). An example of an item on the CSE includes “when I am with a boyfriend, I feel that I can always be responsible for what happens sexually with him” and “if my boyfriend and I are getting ‘turned-on’ sexually and I don’t really want to have sexual intercourse (go-all-the-way, get-down), I can easily stop things so that we don’t have intercourse”. Consistent with Impett et al. (2006), items that initially referred to contraception (i.e., pills, foam) were modified to refer to contraception more generally so as to also include condom use. Modifications to the measure were also made in order to avoid heterosexual bias, whereby the term “boyfriend” was changed to “sexual partner.” The CSE has demonstrated adequate internal consistency ($\alpha = .73$) and predictive validity (i.e., predicted contraceptive behavior) among several samples (Levinson, 1986). Within this study, the CSE demonstrated adequate internal consistency ($\alpha = .74$).

Sexual risk behaviors (SRBs). Sexual risk behaviors were measured by the Sexual Risk Scale—SRS (Turchik & Garske, 2009). Sexual risk taking behaviors are defined as behaviors that may lead to unintended pregnancy or sexually transmitted

infections (Turchik & Garske, 2009). The SRS is a 23 item measure, designed to assess for SRBs among college students within the past 6 months. The SRS is composed of 5 factors and includes: Sexual Risk Taking with Uncommitted Partners, Risky Sexual Acts, Impulsive Sexual Behaviors, Intent to Engage in Risky Sexual Behaviors, and Risky Anal Sex Acts. All items are coded into 5 categories ranging from 0 (very minimal risk) to 4 (high risk). For example, responses to a question investigating prior sexual behavioral partners were coded 0 = 0; 1 = 1 – 2 partners; 2 = 3 – 4 partners; 3 = 5 – 9 partners; and 4 = 10 or more partners. For items assessing the frequency of certain behaviors (e.g., vaginal sex without a condom), responses were coded 0 = 0 times; 1 = 1 – 3 times; 2 = 4 – 14 times; 3 = 15 – 50 times; and 4 = 51 or more times. The total SRS has demonstrated good internal consistency ($\alpha = .88$), test-retest reliability ($r = .93$), convergent (i.e., SRS correlated with scales of sexual inhibition, sexual excitation, impulsive sensation seeking, substance use, and sexual desire) and concurrent validity (i.e., sexual risk taking over six months related to more health consequences), and appears resistant to effects of social desirability. Within this study, the SRS internal coefficient alpha was .88.

Data Analysis

Data was input into an SPSS file in order to manage the data set, as well as to maintain a raw data file. Prior to testing the model, the data were screened for a variety of potential problems, such as non-normality (i.e., skew and kurtosis), outliers, missing data, multicollinearity, and ill scaled covariance matrix. Although very robust to violations of normality, measured variable path analysis assumes normal distributions of endogenous variables (Kline, 2005). Kline (2005) suggests that a skew index greater than the absolute value of 3 is indicative of skew, while a kurtosis index exceeding the absolute value of

eight represents extreme kurtosis. Visual inspection of normality plots were also conducted on each of the variables. None of the endogenous variables demonstrated skew or kurtosis; therefore, no corrections for normality were made.

In regards to the issue of missing data, twenty participants were excluded from analysis due to large amounts of missing data (96 % of data was retained). Within the remaining data set, there were a few missing data points on some of the items. Although minimal, multiple imputations (5 imputations) were conducted. Multiple imputations replaces missing scores with a value based upon means and variances within the entire sample (Kline, 2005).

The data were also screened for outliers. Specifically, boxplots revealing outliers were visually inspected in order to screen for statistically significant outliers. No statistically significant outliers were observed, and therefore, no outliers were removed from the data set.

Multicollinearity was also inspected prior to running the model. Kline (2005) suggests that correlations greater than the absolute value of .85 are highly related. Multicollinearity between variables were not observed in this data set. No other problems were observed.

After the data were prepared and screened, a measured variable path analysis (MVPA), a form of structural equation modeling, was conducted in order to test the relationship among the variables, as well as the data and theoretical model fit. Version 8.80 of LISREL (Linear Structural Relationships) for Microsoft Windows (Jöreskog & Sörbom, 2006) was used in order to conduct the MVPA. Syntax coding was entered into

LISREL 8.80 so that the software could perform the MVPA on both Model A and Model B.

In order to assess data to model fit for Model A, a variety of goodness of fit indices were consulted. Kline (2005) suggested consulting several different fit indices (i.e., Model Chi-Square, Root Mean Square Error of Approximation [RMSEA], Comparative Fit Index [CFI], Standardized Root Mean Square Residual [SRMR], Normed Fit Index [NFI], Goodness of Fit Index [GFI]) as there are certain limitations to almost all of them. Therefore, several fit indices should be assessed before determining whether or not the data fits the theoretical model. A statistically significant chi-square indicates that the data may be a good fit to the theoretical model. If RMSEA is below $p = .05$, then the model does not appear to fit badly. The 90 % confidence interval of RMSEA may also be consulted. Thus, if the 90 % confidence interval is entirely below .05, then the model does not fit badly. If the 90 % confidence interval includes .05, then the RMSEA is inconclusive regarding model fit, and if the 90 % confidence interval is entirely above .05, then the data-model fit is bad. Goodness of fit is evidenced if NFI, CFI, and GFI have scores of .95 or higher. SRMR values below .05 are considered indicative of goodness of fit. The same procedures were used to test Model B. Following testing of both Models and B, the Akaike Information Criterion (AIC) was consulted. The AIC is a goodness of fit index commonly used to compare different models. The model with the smaller AIC indicates a better data to model fit.

After determining the better model, modification indices provided by LISREL 8.80 were consulted in order to see if the program provided suggestions for improving data-model fit by changing the model in some way (i.e., adding a path). Lagrange

multipliers are frequently used to determine if adding a path would significantly improve data-model fit. Only paths that were theoretically defensible were added. Only one path was added at a time in order to see if overall data-model fit is improved. After modifications were made, the path coefficients were interpreted in order to see which paths were statistically significant in order to interpret the model. Standardized indirect effects were also interpreted in order to determine the variance explained in SRBs (and the other variables) by the model. Lastly, indirect effects were tested for statistical significance.

Results

Means, standard deviations, and intercorrelations for the observed variables are shown in Table 1. Model A was first tested utilizing Version 8.8 of LISREL (Linear Structural Relationships) for Microsoft Windows (Jöreskog & Sörbom, 2006). Results indicated that the data did not fit Model A well ($\chi^2 [7] = 77.15, p = 0$; RMSEA = .134; 90 % CI for RMSEA = .11 - .16; Model AIC = 105.15; CFI = .81; NFI = .80; GFI = .96; and SRMR = .08). The data were a better fit to Model B ($\chi^2 [4] = 58.31, p = 0$; RMSEA = .156; 90 % CI = .12 - .19; Model AIC = 92.31; NFI = .84; CFI = .85; SRMR = .07; GFI = .97). Thus, Model B was the favored path design. Modification indices were then consulted in order to see if Lisrel 8.80 suggested adding a path in order to improve data-model fit for Model B. The following pathways were added per modification indices: a pathway from body shame to alexithymia and a pathway from childhood sexual abuse to sexual risk behaviors. Once these pathways were added, fit indices were again consulted, which resulted in an improvement in data to model fit ($\chi^2 [2] = 4.25, p = .12$; RMSEA =

.045; 90 % CI for RMSEA = 0 - .11; CFI = .99; NFI = .99; GFI = .99; and SRMR = .02.

No other pathways were suggested.

Table 1

Means, Standard Deviations, and Intercorrelations for All Study Variables

Variable	X	SD	1	2	3	4	5
1. CTQSAS	7.31	4.10					
2. OBCBSurv	4.56	1.06	.006				
3. OBCBSh	2.90	1.27	.115**	.476**			
4. TAS-20	46.18	12.39	.113**	.226**	.341**		
5. CSES	71.39	10.00	-.079	-.124**	-.184**	-.406**	
6. SRS	12.39	9.73	-.166**	.092*	.087*	-.070	.051

TAS-20 = Toronto Alexithymia Scale; CSES = Contraceptive Self-Efficacy Scale; OBCBSurv = Body Surveillance Subscale of the Objectified Body Consciousness Scale; OBCBSh = Body Shame Subscale of the Objectified Body Consciousness Scale; SRS = Sexual Risk Scale; CTQSAS = Sexual Abuse Subscale of the Childhood Trauma Questionnaire.

* $p < .05$; ** $p < .01$.

Following the analysis of data to model fit, t -values were consulted in order to see which pathways were statistically significant. The following paths were significant: from Childhood Sexual Abuse to Alexithymia ($t[2] = 2.39$); Childhood Sexual Abuse to Body Shame ($t[2] = 2.72$); Body Surveillance to Alexithymia ($t[2] = 11.51$); Body Surveillance to Body Shame ($t[2] = 5.49$); Body Shame to Alexithymia ($t[2] = 6.39$); Body Shame to Contraceptive Self-Efficacy ($t[2] = -9.85$); Alexithymia to Sexual Risk Behaviors ($t[2] = 2.55$); Body Shame to Sexual Risk Behaviors ($t[2] = -2.33$); and Childhood Sexual Abuse

to Sexual Risk Behaviors ($t[2] = 4.03$). All paths were significant at the $p < .05$ level (see Figure 4).

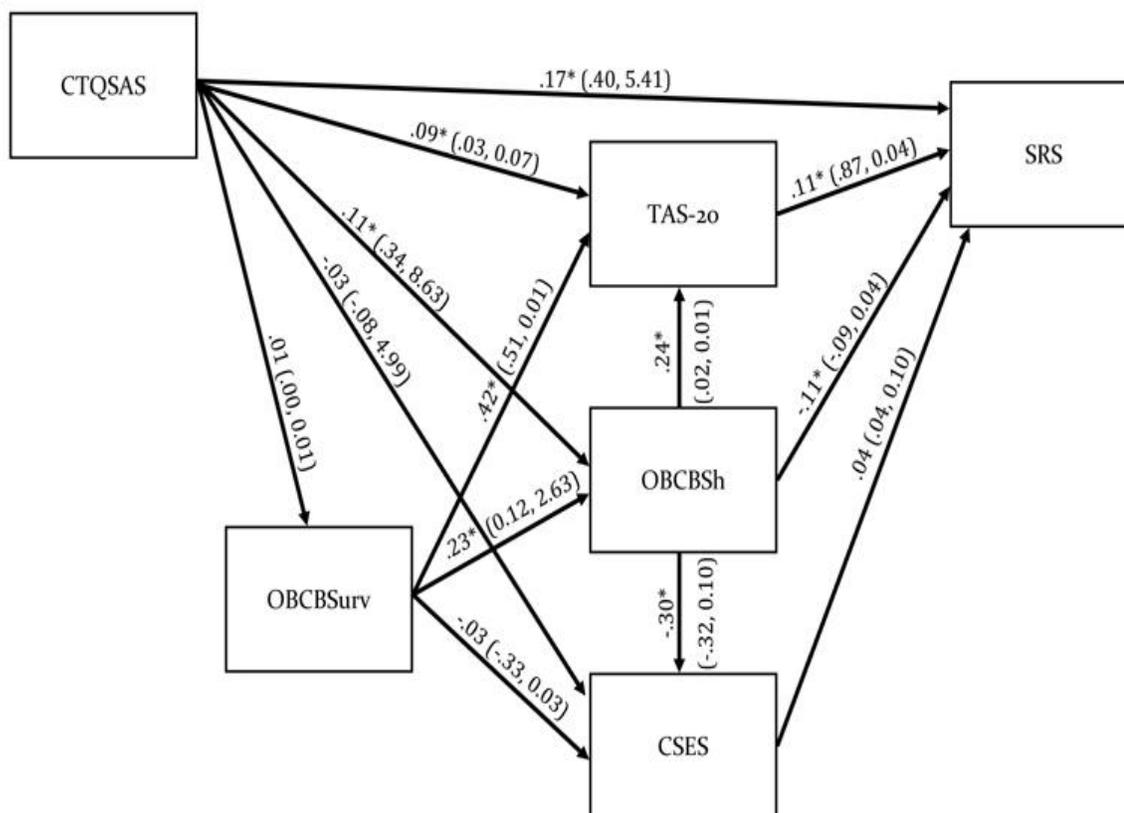


Figure 4. Relationships Among Observed Variables and Standardized Coefficients in Model B. Unstandardized estimates and unstandardized standard errors are included in parentheses. All other coefficients are standardized values. TAS-20 = Toronto Alexithymia Scale; CSES = Contraceptive Self-Efficacy Scale; OBCBSurv = Body Surveillance Subscale of the Objectified Body Consciousness Scale; OBCBSH = Body Shame Subscale of the Objectified Body Consciousness Scale; SRS = Sexual Risk Scale; CTQSAS = Sexual Abuse Subscale of the Childhood Trauma Questionnaire. * $p < .05$

Structural equations were interpreted in order to assess the variance explained in SRBs (and other variables) by the model. For example childhood sexual abuse accounted for 0% of the variance in self-objectification. Self-objectification, body shame, and childhood sexual abuse accounted for 29% of the variance in alexithymic symptoms. Self-objectification and childhood sexual abuse accounted for 6 % of the variance in

body shame. Seventeen percent of the variance in sexual self-efficacy was accounted for by self-objectification, body shame, and childhood sexual abuse. Five percent of the variance in sexual risk behaviors was accounted for by alexithymia, body shame, sexual self-efficacy, and childhood sexual abuse. All of the variables (i.e., self-objectification, alexithymia, body shame, sexual self-efficacy, and childhood sexual abuse), when taken as a whole, accounted for 5 % of the variance in sexual risk behaviors.

After assessing and interpreting the structural equations, standardized indirect effects were calculated. According to Kline (2005) standardized path coefficients may be interpreted directly, such that absolute values less than .10 suggest a small effect size; absolute values around .30 are indicative of medium effects; and absolute values around .50 or more are suggestive of large effect sizes.

First, indirect effects of childhood sexual abuse on sexual risk behaviors were calculated. The indirect effects from childhood sexual abuse to sexual risk behaviors via alexithymia were ($\beta = .001$ [.09 x .11]); via self-objectification and alexithymia were ($\beta = .0005$ [.01 x .42 x .11]); via body shame ($\beta = -.012$ [.11 x -.11]); via self-objectification and body shame ($\beta = .0002$ [.01 x .23 x .11]); via sexual self-efficacy ($\beta = -.001$ [-.03 x .04]); via self-objectification and sexual self-efficacy ($\beta = 0$ [.01 x -.03 x .04]); via body shame and sexual self-efficacy ($\beta = -.001$ [.11 x -.30 x .04]); via self-objectification, body shame, and sexual self-efficacy ($\beta = -.0002$ [.01 x .23 x -.3 x .04]); via body shame and alexithymia ($\beta = .003$ [.11 x .24 x .11]); and via self-objectification, body shame, and alexithymia were ($\beta = 0$ [.01 x .23 x .24 x .11]).

Second, the indirect effects of self-objectification on sexual risk behaviors were calculated. The indirect effects of self-objectification on sexual risk behaviors via

alexithymia were ($\beta = .046$ [.42 x .11]); via body shame were ($\beta = -.025$ [.23 x -.11]); via sexual self-efficacy ($\beta = -.001$ [-.03 x .04]); via body shame and sexual self-efficacy ($\beta = -.002$ [.23 x -.30 x .04]); and via body shame and alexithymia ($\beta = .006$ [.23 x .24 x .11]).

Third, indirect effects from childhood sexual abuse to all mediating variables (i.e., alexithymia, body shame, and sexual self-efficacy) via self-objectification were calculated: from childhood sexual abuse to alexithymia via self-objectification ($\beta = .004$ [.01 x .42]); to body shame via self-objectification ($\beta = .0023$ [.01 x .23]); to sexual self-efficacy via self-objectification ($\beta = -.0003$ [.01 x -.03]).

Fourth, the indirect effects from both childhood sexual abuse and self-objectification on sexual self-efficacy via body shame were calculated. The indirect effect of childhood sexual abuse on sexual self-efficacy via body shame was ($\beta = -.033$ [.11 x -.30]); and via self-objectification and body shame ($\beta = -.0007$ [.01 x .23 x -.30]). The indirect effect of self-objectification on sexual self-efficacy via body shame was ($\beta = -.069$ [.23 x -.30]).

Finally, all of the indirect pathways from CTQSAS to SRS equaled zero (i.e., $\beta = .01$ x .09 x .11 x -.03 x .24 x -.3 x .24 x -.3 x .11 x -.11 x .04). Similarly, all of the indirect effects from self-objectification to sexual risk behaviors were calculated and equaled zero (i.e., $\beta = .42$ x .23 x .03 x .24 x -.3 x .11 x .11 x .04).

Indirect effects were also tested for statistical significance utilizing the Sobel (1982) test. Results revealed the following: body shame fully mediated the relationship between CTQSAS and CSES ($z = 2.63$, $p < .01$); alexithymia fully mediated the relationship between self-objectification and (measured via body surveillance) SRBs ($z = 2.49$, $p < .05$); body shame fully mediated the relationship between self-objectification

and SRBs ($z = 2.14, p < .05$); body shame fully mediated the relationship between self-objectification and CSES ($z = 4.80, p < .001$).

In sum, data revealed that the data were a better fit to Model B (the partially mediated model). Specifically, results revealed a positive direct relationship between childhood sexual abuse and sexual risk behaviors. That is, more incidents of childhood sexual abuse contributed to greater sexual risk behaviors in undergraduate women. In addition, data revealed that childhood sexual abuse led to increased levels of alexithymia. Furthermore, alexithymia led to increased sexual risk behaviors, whereas body shame decreased sexual risk behaviors. Moreover, body shame resulting from childhood sexual abuse also contributed to more alexithymic symptoms, which then led to increased sexual risk behaviors.

Data revealed that the relationship between self-objectification and sexual risk behaviors was mediated by alexithymia and body shame. That is, self-objectification resulted in more alexithymic symptoms, which then contributed to more sexual risk behaviors. Similarly, self-objectification resulted in more body shame, but more body shame actually decreased sexual risk behaviors; however, the increase in body shame resulting from self-objectification contributed to more alexithymic symptoms, which then led to increased sexual risk behaviors.

In addition, results demonstrated that both childhood sexual abuse and self-objectification did not directly contribute to less sexual self-efficacy. Rather, both childhood sexual abuse and self-objectification contributed to decreased sexual self-efficacy via increased levels of body shame. Decreased sexual self-efficacy, however, did

not contribute to more sexual risk behaviors. An additional important finding was that the relationship between childhood sexual abuse and self-objectification was non-significant.

Discussion

The results of this study extend Objectification Theory (Fredrickson & Roberts, 1997) by including childhood sexual abuse as a sexually objectifying experience that may be internalized by young women, leading them to self-objectify, ultimately affecting their sexual practices and behaviors. Prior research revealed a relationship between childhood sexual abuse and sexual risk behaviors; however, to date, few researchers have examined *how* this occurs. This study does just that—it identified certain pathways that lead from childhood sexual abuse and self-objectification to sexual risk behaviors. This study revealed a complex process by which women begin to engage in harmful sexual risk practices and behaviors via self-objectification, body shame, and alexithymia.

The results revealed childhood sexual abuse has a direct relationship to sexual risk behaviors, but several variables may have partially mediated this relationship. Specifically, these results revealed that childhood sexual abuse contributed to more alexithymic symptoms (or difficulty identifying or describing emotions, as well as the tendency to possess an external sense of awareness), which then contributed to higher rates of sexual risk behaviors. That is, sexual abuse appear to contribute to a process whereby women appear disconnected from their own emotional states. In turn, this emotional disconnection contributes to the propensity to engage in more sexually risky behaviors. This finding confirms prior research that indicates that sexual abuse contributes to alexithymic symptoms (Berenbaum, 1996; Paivio & McCulloch, 2004; Scher & Twaite, 1999; Zeitlin et al., 1993; Zlotnick et al., 1996). Prior research revealed

that alexithymia may contribute to other risk behaviors, such as substance abuse and cutting. However, no research to date has assessed whether alexithymia predicts sexual risk behaviors. The finding that alexithymia may partially mediate the relationship between childhood sexual abuse and sexual risk behaviors is significant as it extends the knowledge of how women who experience childhood sexual abuse begin to engage in sexual risk behaviors.

Results also revealed that childhood sexual abuse contributed to a greater sense of body shame, which then resulted in less sexual risk behaviors. The finding that there is a negative relationship between body shame and sexual risk behaviors is a surprising one that contradicts the original hypothesis (i.e., more body shame results in more sexual risk behaviors). Scholars have hypothesized that body shame contributes to a desire to disappear, particularly within sexual relationships. The desire to disappear is thought to result in more sexual risk behaviors (Cooper et al., 2003; Schooler et al., 2005). However, it may be that the more shameful a woman is of her body, the less willing she is to engage in sexual activity, much less risky sexual behaviors.

Childhood sexual abuse led to increased body shame, and body shame decreased sexual risk behaviors. Data revealed that body shame appears to mediate the relationship between childhood sexual abuse and decreased sexual self-efficacy. That is, childhood sexual abuse contributed to a greater sense of body shame, which then resulted in less assertiveness in preventing sexual activity, less willingness to initiate sexual activity, and less insistence upon the use of sexual protection. Surprisingly, less sexual self-efficacy did not result in significantly more sexual risk behaviors. This finding contradicts prior research that suggests that decreased sexual self-efficacy contributes to less use of sexual

protection (Impett et al., 2006; Hirschman et al., 2006). This finding may be due to measurement issues. That is, a total score on the SRS was utilized that consisted of various subscales: sexual risk taking with uncommitted partners, risky sex acts (e.g., inconsistent condom use), impulsive sexual behaviors, intent to engage in risky sexual behaviors, and risky anal sex. Using a total score, rather than using a subscale, such as risky sex acts, may account for this finding. Moreover, lower internal consistency of the CSES may have also accounted for the finding.

Results also revealed that self-objectification contributed to sexual risk behaviors via alexithymic symptoms and body shame. Specifically, self-objectification appears to contribute to more alexithymia, which then predicts increased sexual risk behaviors. According to Fredrickson and Roberts (1997), self-objectification occurs when an individual possesses an outsider's perspective of themselves, and when this occurs, the individual may experience a decreased sense of internal awareness. That is, the energy required to view one's self as a sexual object disconnects a woman from her internal processes, resulting in alexithymia. When engaged in sexual relationships, this inability to identify, describe, and respect one's feelings appear to result in more sexual risk practices. Furthermore, data also revealed that self-objectification contributed to more body shame, which then decreased sexual risk behaviors. When an individual self-objectifies, they often experience body shame (Fredrickson & Roberts, 1997). As suggested previously, the experience of body shame may lead women to avoid sexual activity, particularly those that are perceived as risky.

Data revealed that childhood sexual abuse and self-objectification did not directly predict sexual self-efficacy. Rather, it appears that body shame may mediate the

relationship between these two variables and decreased sexual self-efficacy. This finding highlights the important role of body shame in contributing to decreased sexual self-efficacy among women. These findings counter aforementioned research suggesting that both childhood sexual abuse (Johnsen, & Harlow, 1996; Lemieux & Byers, 2008; Van Bruggen & Runtz, 2006; Wingood & DiClemente, 1997) and self-objectification (Impett et al., 2006) predict decreased sexual self-efficacy. These findings are surprising and deserve further exploration. It may be that when other variables are accounted for, such as alexithymia, body shame, and sexual risk behaviors, the relationship between childhood sexual abuse and sexual self-efficacy and self-objectification and sexual self-efficacy are no longer significant. Moreover, this study did not empirically control for relationship status. That is, the number of sexual risk behaviors may be due to relationship status or other variables (whereby women in committed relationships feel comfortable engaging in more sexual behaviors), rather than decreased sexual self-efficacy. Future research may further investigate these findings.

With regards to non-significant findings, data revealed that childhood sexual abuse did not predict self-objectification among women. This finding is significant in that it reveals that self-objectification likely results from more indirect experiences of sexual objectification. That is, the routine and persistent experiences of sexual objectification, such as media representations of women, sexualized jokes, and the objectifying gaze, appear to contribute to the experience of viewing one's self as a sexual object, which is frequently manifested via body surveillance. Another reason for this finding may be due to measurement issues. It may be that body surveillance, an act of physically inspecting one's body, does not fully capture the internal emotions that coincide with self-

objectification, or one's internal sense of self-worth based upon their sexual functions. Future research may wish to research the multitude of ways that self-objectification may manifest (e.g., self-sexualization, low self-esteem, body surveillance). Nevertheless, results from this study revealed that childhood sexual abuse and self-objectification appear to act in tandem to explain how and why women begin to engage in sexual risk behaviors.

It should also be noted that although the data fit the conceptual model well, the overall variance explained in sexual risk behaviors by childhood sexual abuse, self-objectification, alexithymia, body shame, and sexual self-efficacy was about 5 %. This finding indicates that other variables may better account for the variance in sexual risk behaviors (see Strengths, Limitations, and Areas of Future Research). Moreover, indirect effect sizes were small, and therefore, caution should be paid when interpreting the results. Future researchers may wish to replicate this model in order to see if different results would be observed within a different population or sample. In addition, alternative models should be considered and researched.

Strengths, Limitations, and Future Research

There are several notable strengths and limitations of this study. This study conceptualized childhood sexual abuse as subsumed under sexual objectification experiences. Although scholars (Hill & Fischer, 2008; Moradi & Huang, 2008) have indicated a need to study the contributions of more direct forms of sexual objectification on self-objectification, no study to date has assessed whether childhood sexual abuse may contribute to self-objectification among young girls and women. That is, most extant studies have assessed the relationship between indirect forms of sexual objectification

(e.g., appearance-based compliments, viewing media images of women) and self-objectification, or they have merely assessed self-objectification via self-report measures without exploring preceding sexually objectifying conditions. This is the first study to examine the relationships among childhood sexual abuse (a direct form of sexual objectification), self-objectification, and sexual risk behaviors and thus has numerous clinical and public health implications.

The APA Task Force on the Sexualization of Girls (2007) released an urgent report stating that research is needed in order to understand the effects of sexual objectification upon women and young girls' wellbeing. Specifically, the report discussed how sexual abuse, a direct form of sexualization, may contribute to young girls and women sexualizing themselves (i.e., self-objectifying), which may then contribute to sexualized behaviors among young girls and women. Such sexualized behaviors may also result in sexual risk taking among young girls and women (APA, 2007b). Thus, this study continues in a vein of crucial research that investigates the effects of sexualization on women's emotional, physical, and sexual wellbeing. The findings suggest that sexual abuse does not result in sexual risk behaviors via self-objectification. Rather, the relationship is direct, while also partially mediated by other variables (i.e., alexithymia and body shame).

An additional strength is the diverse sample represented within the study. The majority of the participants were women of color, with particularly high numbers of African American women. Most research on objectification theory has been conducted with primarily White women (Heimerlinger-Edwards, Vogel, & Hammer, 2011; Szymanski, Moffitt, & Carr; 2011). Therefore, this study is additive to the literature due

to the inclusion of a large number of women of color. Future research may seek to understand how experiences of sexual objectification intersect with various forms of identities, including race, ethnicity, spirituality, sexual orientation, and class status among others. For example, future research may investigate the extent to which this model applies to women of color, older women, LGBT populations, women of particular faiths, individuals with disabilities, women of lower incomes, and the like.

There are several notable limitations and areas for future research as well. Although this study investigated childhood sexual abuse as a direct sexual objectification experience, it did not include other forms of sexual objectification experiences (i.e., adult sexual abuse, sexual harassment, and indirect forms of sexual objectification). Future research may investigate the interaction or combined effects of direct and indirect sexual objectification experiences on women's psychological wellbeing. Another limitation to this study is that it relied upon a convenience sample of undergraduate women. Therefore, participants had varying childhood sexual abuse experiences such that some participants had never experienced sexual abuse ($n = 300$), whereas other had. Future research may seek to extend this model to a population limited to sexual abuse survivors. Moreover, future studies may take into account chronicity, severity, and frequency of abuse; relationship to perpetrator; family and friend responses; and multiple forms of abuse (e.g., emotional, physical) to understand how these variables may contribute to differing experiences with self-objectification and resultant variables.

Path analyses primarily rely upon correlational data, and as a result, causality among variables cannot be inferred (Kline, 2005). Thus, there is a need for more

longitudinal studies that investigate the effects of childhood sexual abuse upon self-objectification, alexithymia, body shame, sexual self-efficacy, and sexual risk behaviors.

In addition to the aforementioned areas of future research, it is also important to note that alternative models should be tested in order to more fully understand the effects of childhood sexual abuse upon the variables of interest within this study, as well as other variables. For example, recent research has suggested a direct connection between sexual objectification experiences and substance use among women (Carr & Szymanski, 2011). In addition, Carr and Szymanski (2011) found that the relationship between sexual objectification and substance use was partially mediated by self-objectification, body shame, and depression, such that sexual objectification led to self-objectification, then body shame, then depression, and then substance use. Understanding the roles that substance use may play within this specified model may also contribute to a greater understanding of sexual risk practices among abused women. In addition to considering alternative models, it is also important to consider alternative research methodologies (Moffitt & Szymanski, 2011). Objectification theory research has primarily relied upon quantitative methodologies. Qualitative methods may reveal more complex connections and understanding from the voices of participants (Szymanski, Moffitt, & Carr, 2011).

Clinical Implications and Social Justice Initiatives

A number of clinical implications result from this study. Psychologists may help clients build insight into how the sociocultural context contributes to sexual victimization among women, thereby reducing self-blame among clients. Moreover, psychologists may help their clients challenge symptoms (i.e., body shame, alexithymia, decreased sexual self-efficacy) that have arisen as a result of the sociocultural context and abusive

experiences, while also helping their clients develop various coping strategies and strategies of resistance against these symptoms (i.e., examining and avoiding highly sexualized environments, selecting partners who value them for more than their sexuality, becoming mindful of their emotions, developing and nurturing various aspects of one's identity [e.g., intellect, hobbies, culture, family], and ways to challenge sexualizing behavior when it occurs [e.g., how to intervene when noticing sexually objectifying behavior; provide emotional and tangible support to a friend who has experienced sexual trauma and/or sexual objectification]). Psychologists and mental health providers may also help their clients understand how self-objectification may contribute to engagement in sexual risk behavior, while also exploring risk perception and educating clients about the importance of safe sexual practices. Psychologists and mental health workers may also refer clients to low-cost organizations that sensitively provide annual check-ups, STD/STI testing, and methods for preventing pregnancy.

It is also important that psychologists and mental health professionals educate their clients as to how body shame results from childhood sexual abuse and self-objectification. These professionals may help their clients combat this negative body view by helping them appreciate and take care of their bodies in a number of healthy ways (e.g., yoga, exercise, affirmative self-statements, proper nutrition, sexually protective measures, etc.). Mental health clinicians may also help their clients to appreciate other aspects of their personhood, as well as to challenge narrowly defined standards of beauty.

Psychologists and mental health practitioners may also help their clients understand how body shame affects their sexual practices via decreased sexual self-

efficacy. The experience of body shame may result in women feeling less assertive in utilizing contraception; women minimally initiating sexual activity; and feeling less control or voice in sexual relationships. These conversations may be particularly beneficial to women who are partnered and are experiencing difficulties with sexual intimacy.

While clinical interventions may help reduce sexual risk behaviors among women, it must be underscored that the experience of sexual victimization and objectification is a reflection of societal values and beliefs about women. Thus, “it is unlikely that individual psychotherapy is going to be very effective at reducing, changing, or preventing these messages and images that promote the notion that sexualization of girls and women is normal and good from occurring” (Szymanski & Carr, 2011, p. 165). Therefore, it is imperative to consider how helping professionals may work to change the sociocultural context. Within classrooms, instructors and professors may incorporate social justice and advocacy projects whereby students interface with the community in some way to educate others about the effects of a sexually objectifying culture (e.g., design outreach and advocacy projects that speak about the harmful effects of sexual victimization and sexual objectification); facilitate dialogues of how gender, oppression, and other systemic forces may contribute to wellbeing; assign readings on sexual objectification (e.g., *Reviving Ophelia: Saving the Selves of Adolescent Girls* [Pipher, 1994]; Fredrickson and Robert’s (1997) classic theoretical article on sexual objectification); and discuss how current events are reflective of the overall sociocultural climate. Outreach regarding sexual assault, sexual objectification, and safety precautions (e.g., “party safe”) may also be designed for target audiences, such as men, fraternities,

sororities, and other groups often seen on college campuses. Similarly, intervention programs, integrating sociocultural components, sexual self-efficacy, substance use, and body shame, may also be developed in order to reduce sexual risk behaviors on college campuses.

While this study is meant to reveal the pathways by which childhood sexual abuse contributes to sexual risk behaviors, it is also a call to action. It is imperative to understand *how* such processes occur and how we, as psychologists and mental health professionals, may develop individual and systemic interventions. By transforming a rape culture that sexualizes young girls and women, we may begin to dismantle oppressive power structures that affect the lives of both women and men. In doing so we may build safer communities, stronger women and men, and boys and girls.

References

- Allsworth, J., Anand, M., Redding, C. A., & Peipert, J. E. (2009). Physical and sexual violence and incident sexually transmitted infections. *Journal of Women's Health, 18*(4), 529-534. doi: 10.1089/jwh.2007.0757
- Alvarez, J., Pavao, J., Mack, K. P., Chow, J. M., Baumrind, N., & Kimerling, R. (2009). Lifetime interpersonal violence and self-reported Chlamydia trachomatis diagnosis among California women. *Journal of Women's Health, 18*(1), 57-63. doi: 10.1089/jwh.2007.0665
- American Psychological Association. (1979). Principles concerning the counseling and psychotherapy of women. *Counseling Psychologist, 8*, 21-54. doi: 10.1177/0011000086141019
- American Psychological Association. (2007a). Guidelines for psychological practice with girls and women. *American Psychologist, 62*(9), 949-979. Retrieved from <http://content.apa.org/journals/amp/62/9/949>
- American Psychological Association (2007b). Report of the APA task force on the sexualization of girls. Retrieved from www.apa.org/pi/wpo/sexualization.html
- Andrews, B. (1995). Bodily shame as a mediator between abusive experiences and depression. *Journal of Abnormal Psychology, 104*(2), 277-285. doi: 10.1037/0021-843X.104.2.277
- Andrews, B. (1997). Bodily shame in relation to abuse in childhood and bulimia: A preliminary investigation. *British Journal of Clinical Psychology, 36*(1), 41-49.

- Augustus-Horvath, C. L., & Tylka, T. L. (2009). A test and extension of objectification theory as it predicts disordered eating: Does women's age matter? *Journal of Counseling Psychology, 56*(2), 253-265. doi: 10.1037/a0014637
- Bagby, R. M., Parker, J. D. A. & Taylor, G. J. (1994). The twenty-item Toronto Alexithymia Scale: I. Item selection and cross-validation of the factor structure. *Journal of Psychosomatic Research, 38*(1), 23-32. doi: 10.1016/0022-3999(94)90005-1
- Baldwin, J. A., & Baldwin, J. D. (2000). Heterosexual anal intercourse: An understudied high-risk sexual behavior. *Archives of Sexual Behavior, 29*(4), 367-373. doi: 10.1023/A:1001918504344.
- Bartky, S. L. (1990) *Femininity and domination: Studies in the phenomenology of oppression*. New York: Routledge.
- Berenbaum, H. (1996). Childhood abuse, alexithymia, and personality disorder. *Journal of Psychosomatic Research, 41*(6), 585-595. doi: 10.1016/S0022-3999(96)00225-5
- Bernstein, D. P., Stein, J. A., Newcomb, M. D., Walker, E., Pogge, D., Ahluvalia, T. et al. (2003). Development and validation of a brief screening version of the Childhood Trauma Questionnaire. *Child Abuse & Neglect, 27*, 169-190. doi: 10.1016/S0145-2134(02)00541-0
- Brezo, J., Paris, J., Vitaro, F., Hebert, M., Tremblay, R., & Turecki, G. (2008). Predicting suicide attempts in young adults with histories of childhood sexual abuse. *British Journal of Psychiatry, 193*(2), 134-139. doi: 10.1192/bjp.bp.107.037994

- Brown-Peterside, P., Ren, L., Chiasson, M., & Koblin, B. A. (2002). Double trouble: Violent and non-violent traumas among women at sexual risk of HIV infection. *Women & Health, 36*(3), 51-64.
- Burnette, M. L., Ilgen, M., Frayne, S. M., Luca, E., Mayo, J., & Weitlauf, J. C. (2008). Violence perpetration and childhood abuse among men and women in substance abuse treatment. *Journal of Substance Abuse Treatment, 35*(2), 217-222. doi: 10.1016/j.jsat.2007.10.002
- Buzi, R. S., Tortolero, S. R., Roberts, R. E., Ross, M. W. Addy, R. C., & Markham, C. M. (2003). The impact of a history of sexual abuse on high-risk sexual behaviors among females attending alternative schools. *Adolescence, 38*(152), 595-605.
- Calogero, R. M. (2009). Objectification processes and disordered eating in British women and men. *Journal of Health Psychology, 14*(3), 394-402. doi: 10.1177/1359105309102192
- Calogero, R. M., Davis, W. N., & Thompson, J. K. (2005). The role of self-objectification in the experience of women with eating disorders. *Sex Roles, 52*(1/2), 43-50. doi: 10.1007/s11199-005-1192-9
- Calogero, R. M., & Thompson, T. J. (2009). Sexual self-esteem in American and British college women: Relations with self-objectification and eating problems. *Sex Roles, 60*(3-4), 160-173. doi: 10.1007/s11199-008-9517-0
- Campbell, J. C., & Soeken, K. (1999). Forced sex and intimate partner violence: Effects on women's health. *Violence Against Women, 5*(9), 1017-1035. doi: 10.1177/10778019922181608

- Carr, E. R., & Szymanski, D. M. (2011). Sexual objectification and substance abuse in young adult women. *The Counseling Psychologist, 39*, 39-66. doi: 10.1177/0011000010378449
- Cecil, H., & Matson, S. C. (2001). Psychological functioning and family discord among African-American adolescent females with and without a history of childhood sexual abuse. *Child Abuse & Neglect, 25*(7), 973-988.
- Cheasty, M., Clare, A. W., & Collins, C. (2002). Child sexual abuse: A predictor of persistent depression in adult rape and sexual assault victims. *Journal of Mental Health, 11*(1), 79-84. doi: 10.1080/096382301200041489.
- Cooper, M. L., Wood, P. K., Orcutt, H. K., & Albino, A. (2003). Personality and the predisposition to engage in risky or problem behaviors during adolescence. *Journal of Personality & Social Psychology, 84*(2), 390-410. doi: 10.1037/0022-3514.84.2.390
- Creamer, M., Burgess, P., & McFarlane, A. C. (2001). Post-traumatic stress disorder: Findings from the Australian National Survey of Mental Health and Well-being. *Psychological Medicine, 21*(7), 1237-1247. doi: 10.1017/S0033291701004287
- Evren, C., Evren, B., Dalbudak, E., Ozelik, B., & Oncu, F. (2009). Childhood abuse and neglect as a risk factor for alexithymia in adult male substance dependent inpatients. *Journal of Psychoactive Drugs, 41*(1), 85-92.
- Fisher, B. S., Cullen, F. T., & Turner, M. G. (2000). The sexual victimization of college women. Research report. Retrieved February 3, 2010 from <http://www.ncjrs.gov/pdffiles1/nij/182369.pdf>.

- Flannery, D., Ellingson, L., Votaw, K., & Schaefer, E. (2003). Anal intercourse and sexual risk factors among college women, 1993-2000. *American Journal of Health Behavior, 27*(3), 228-234.
- Fredrickson, B. L., & Roberts, T. (1997). Objectification theory: Toward understanding women's lived experiences and mental health risks. *Psychology of Women Quarterly, 21*(2), 173-206. doi: 10.1111/j.1471-6402.1997.tb00108.x
- Gibson, R., & Hartshorne, T. S. (1996). Childhood sexual abuse and adult loneliness and network orientation. *Child Abuse & Neglect, 20*(11), 1087-1093.
- Grabe, S., Hyde, J. S., & Lindberg, S. M. (2007). Body objectification and depression in adolescents: The role of gender, shame, and rumination. *Psychology of Women Quarterly, 31*(2), 164-175. doi: 10.1111/j.1471-6402.2007.00350.x
- Grassi-Oliveira, R., & Stein, L. M. (2008). Childhood maltreatment associated with PTSD and emotional distress in low-income adults: The burden of neglect. *Child Abuse & Neglect, 32*(12), 1089-1094. doi: 10.1016/j.chiabu.2008.05.008
- Greenleaf, C. (2005). Self-objectification among physically active women. *Sex Roles, 52*(1/2), 51-62. doi: 10.1007/s11199-005-1193-8
- Greenleaf, C., & McGreer, R. (2006). Disordered eating attitudes and self-objectification among physically active and sedentary female college students. *Journal of Psychology: Interdisciplinary and Applied, 140*(3), 187-198. doi: 10.3200/JRLP.140.3.187-198
- Gulette, D. L., & Lyons, A. (2006) Sensation seeking, self-esteem, and unprotected sex in college students. *Journal of the Association of Nurses in AIDS Care, 17*(5), 23-31. doi: 10.1016/j.jana.2006.07.001.

- Haines, M., Erchull, M., Liss, M., Turner, D., Nelson, J., Ramsey, L., et al. (2008). Predictors and effects of self-objectification in lesbians. *Psychology of Women Quarterly*, 32(2), 181-187. doi: 10.1111/j.1471-6402.2008.00422.x
- Hamburger, M. E., Moore, J., Koenig, L. J., Vlahov, D., Schoenbaum, E. E., Schuman, P., et al. (2004). Persistence of inconsistent condom use: Relation to abuse history and HIV serostatus. *AIDS and Behavior*, 8(3), 333-344. doi: 10.1023/B:AIBE.0000044080.04397.97
- Harper, B., & Tiggemann, M. (2008). The effect of thin ideal media images on women's self-objectification, mood, and body image. *Sex Roles*, 58(9/10), 649-657. doi: 10.1007/s11199-007-9379-x
- Harrison, K., & Fredrickson, B. (2003). Women's sports media, self-objectification, and mental health in Black and White adolescent females. *Journal of Communication*, 53(2), 216-232. doi: 10.1111/j.1460-2466.2003.tb02587.x
- Heimerdinger-Edwards, S. R., Vogel, D. L., & Hammer, J. H. (2011). Extending sexual objectification theory and research to minority populations, couples, and men. *The Counseling Psychologist*, 39, 140-152. doi: 10.1177/0011000010383894
- Heinrich, L. B. (1993). Contraceptive self-efficacy in college women. *Journal of Adolescent Health*, 14, 269-276.
- Heppner, P. P., Casas, J. M., Carter, J., & Stone, G. L. (2000). The maturation of counseling psychology: Multifaceted Perspective, 1978-1998. In S. D. Brown, & R. W. Lent (Eds.), *Handbook of Counseling Psychology* (pp. 3-50). New York: John Wiley & Sons, Inc.
- Hill, M. S., & Fischer, A. R. (2008). Examining objectification theory: Lesbian and heterosexual women's experiences with sexual- and self-objectification.

Counseling Psychologist, 36(5), 745-776. Retrieved from
<http://dx.doi.org/10.1177/0011000007301669>

- Hirschman, C., Impett, E. A., & Schooler, D. (2006). Dis/embodied voices: What late-adolescent girls can teach us about objectification and sexuality. *Sexuality Research & Social Policy: Journal of National Sexuality Research Center*, 3(4), 8-20. doi: 10.1525/srsp.2006.3.4.8
- Holzer, S. R., Uppala, S., Wonderlich, S. A., Crosby, R. D., & Simonich, H. (2008). Mediation significance of PTSD in the relationship of sexual trauma and eating disorders. *Child Abuse & Neglect*, 32(5), 561-566. ; doi: 10.1016/j.chiabu.2007.07.011
- Impett, E. A., Schooler, D., & Tolman, D. L. (2006). To be seen and not heard: Femininity Ideology and Adolescent Girls' Sexual Health. *Archives of Sexual Behavior*, 35(2), 131-144. doi:10.1007/s10508-005-9016-0
- Johnsen, L. W., & Harlow, L. L. (1996). Childhood sexual abuse linked with adult substance use, victimization, and AIDS risk. *AIDS Education and Prevention*, 8(1), 44-57.
- Joinson, A. (1999). Social Desirability, anonymity, and Internet-based questionnaires. *Behavior Research, Methods, Instruments, & Computers*, 31(3), 433-438.
- Jöreskog, K. G., & Sörbom, D. (1993). *LISREL 8 user's reference guide*. Chicago, IL: Scientific Software International.
- Kline, R. B. (2005). *Principles and Practice of Structural Equation Modeling*. New York: The Guilford Press.

- Kozee, H. B., Tylka, T. L., Augustus-Horvath, C. L., & Denchik, A. (2007). Development and psychometric evaluation of the interpersonal sexual objectification scale. *Psychology of Women Quarterly, 31*(2), 176-189. doi: 10.1111/j.1471-6402.2007.00351.x
- Lewis, J. E., Malow, R. M., Y Ireland, S. J. (1997). HIV/AIDS in heterosexual college students: A review of a decade of literature. *Journal of American College Health, 45*(4), 147-158.
- Lemieux, S. R., & Byers, S. E. (2008). The sexual well-being of women who have experienced child sexual abuse. *Psychology of Women Quarterly, 32*(2), 126-144. doi: 10.1111/j.1471-6402.2008.00418.x
- Levinson, R. A. (1986). Contraceptive self-efficacy: A perspective on teenage girls' contraceptive behavior. *Journal of Sex Research, 22*(3), 347-369.
- Levinson, R. A., Wan, C. K., & Beamer, L. J. (1998). The contraceptive self-efficacy scale: Analysis in four samples. *Journal of Youth and Adolescence, 27*(6), 773-793.
- Littleton, H., Radecki Breitkopf, C., & Berenson, A. (2007). Sexual and physical abuse history and adult sexual risk behaviors: Relationships among women and potential mediators. *Child Abuse & Neglect, 31*(7), 757-768. doi: 10.1016/j.chiabu.2006.12.015
- Logio, K. A. (2003). Gender, race, childhood abuse, and body image among adolescents. *Violence Against Women, 9*(8), 931-954.
- Mann, L. S., & Wise, T. N. (1995). Alexithymia, affect recognition, and five factors of personality in substance abusers. *Perceptual & Motor Skills, 81*(1), 35-41.

- McKinley, N. M., & Hyde, J. S. (1996). The objectified body consciousness scale: Development and validation. *Psychology of Women Quarterly*, *20*(2), 181-215. doi: 10.1111/j.1471-6402.1996.tb00467.x
- Messman-Moore, T. L., Coates, A. A., Gaffey, K. J., & Johnson, C. F. (2008). Sexuality, substance use, and susceptibility to victimization: Risk for rape and sexual coercion in a prospective study of college women. *Journal of Interpersonal Violence*, *23*(12), 1730-1746. doi: 10.1177/0886260508314336
- Moffitt, L. B., & Szymanski, D. M. (2011). Experiencing sexually objectifying environments: A qualitative study. *The Counseling Psychologist*, *39*, 67-106. doi: 10.1177/0011000010364551
- Monro, F. J., & Huon, G. F. (2006). Media-portrayed idealized images, self-objectification, and eating behavior. *Eating Behaviors*, *7*(4), 375-383. doi: 10.1016/j.eatbeh.2005.12.003
- Moradi, B., Dirks, D., & Matteson, A. V. (2005). Roles of sexual objectification experiences and internalization of standards of beauty in eating disorder symptomology: A test and extension of objectification theory. *Journal of Counseling Psychology*, *52*(3), 420-428. doi: 10.1037/0022-0167.52.3.420
- Moradi, B., & Huang, Y. (2008). Objectification theory and psychology of women: A decade of advances and future directions. *Psychology of Women Quarterly*, *32*(4), 377-398. doi: 10.1111/j.1471-6402.2008.00452.x
- Muehlenkamp, J. J., & Saris-Baglama, R. N. (2002). Self-objectification and its psychological outcomes for college women. *Psychology of Women Quarterly*, *26*(4), 371-379.

- Muehlenkamp, J. J., Swanson, J. D., & Brausch, A. M. (2005). Self-objectification, risk taking, and self-harm in college women. *Psychology of Women Quarterly, 29*(1), 24-32. doi: 10.1111/j.1471-6402.2005.00164.x
- Myers, T. A., & Crowther, J. H. (2008). Is self-objectification related to interoceptive awareness? An examination of potential mediating pathways to disordered eating attitudes. *Psychology of Women Quarterly, 32*(2), 172-180. doi: 10.1111/j.1471-6402.2008.00421.x
- Myers, H. F., Wyatt, G. E., Burns Loeb, T., Vargas Carmona, J., Warda, U., Longshore, D., Rivkin, I., Chin, D., & Liu, H. (2006). Severity of child sexual abuse, post-traumatic stress and risky sexual behaviors among HIV-positive women. *AIDS and Behavior, 10*(2), 191-199. doi: 10.1007/s10461-005-9054-6
- Noll, S., & Fredrickson, B. L. (1998). A mediational model linking self-objectification, body shame, and disordered eating. *Psychology of Women Quarterly, 22*(4), 623-636.
- O'Hare, T., & Sherrer, M. V. (2009). Impact of the most frequently reported traumatic events on community mental health clients. *Journal of Human Behavior in the Social Environment, 19*(2), 186-195. doi: 10.1080/10911350802687158
- Paivio, S. C., & McCulloch, C. R. (2004). Alexithymia as a mediator between childhood trauma and self-injurious behaviors. *Child Abuse & Neglect, 28*(3), 339-354. doi: 10.1016/j.chiabu.2003.11.018
- Piran, N., & Cormier, H. C. (2005). The social construction of women and disordered eating patterns. *Journal of Counseling Psychology, 52*(4), 549-558. doi: 10.1037/0022-0167.52.4.549

- Pluhar, E. I., Fongillo, E. A., Stycos, J. M., & Dempster-McClain, D. (2003). Changes over time in college students' family life planning knowledge, preference, and behavior and implications for contraceptive education and prevention of sexually transmitted infections. *College Student Journal, 37*(3), 545-555.
- National Institute of Justice & Centers for Disease Control & Prevention. (1998). *Prevalence, Incidence and Consequences of Violence Against Women Survey*. Retrieved from <http://www.rainn.org/get-information/statistics/sexual-assault-victims>
- Randolph, M. E., & Mosack, K. E. (2006). Factors mediating the effects of childhood sexual abuse on risky sexual behavior among college women. *Journal of Psychology & Human Sexuality, 18*(1), 23-41. doi: 10.1300/JO56v18n01_02
- Reiland, S., & Lauterbach, D. (2008). Effects of trauma and religiosity on self-esteem. *Psychological Reports, 102*(3), 779-790. doi: 10.2466/PR0.102.3.779-790
- Richman, W. L., Kiesler, S., Weisband, S., & Drasgow, R. (1999). A meta-analytic study of social desirability distortion in computer-administered questionnaires, traditional questionnaires, and interviews. *Journal of Applied Psychology, 84*(5), 754-775. doi: 10.1037/0021-9010.84.5.754
- Sanchez, D., & Kiefer, A. (2007). Body concerns in and out of the bedroom: Implications for sexual pleasure and problems. *Archives of Sexual Behavior, 36*(6), 808-820. doi: 10.1007/s10508-007-9205-0
- Scher, D., & Twaite, J. A. (1999). The relationship between child sexual abuse and alexithymic symptoms in a population of recovering adult substance users. *Journal of Child Sexual Abuse, 8*(2), 25-40. doi: 10.1300/J070v08n02

- Schneider, R., Burnette, M., & Timko, C. (2008). History of physical or sexual abuse and participation in 12-step self-help groups. *American Journal of Drug & Alcohol Abuse, 34*(5), 617-625. doi: 10.1080/00952990802308148
- Schooler, D., Ward, M. L., Merriwether, A., & Caruthers, A. (2005). Cycles of shame: Menstrual shame, body shame, and sexual decision-making. *Journal of Sex Research, 42*(4), 324-334.
- Sikkema, K. J., Hansen, N. B., Meade, C. S., Kochman, A., & Fox, A. M. (2009). Psychosocial predictors of sexual HIV transmission risk behavior among HIV-positive adults with a sexual abuse history in childhood. *Archives of Sexual Behavior, 38*(1), 121-134. doi: 10.1007/s10508-007-9238-4
- Simoni, J. M., Sehgal, S., & Walters, K. L. (2004). Triangle of risk: Urban American Indian women's sexual trauma, injection drug use, and HIV sexual risk behaviors. *AIDS and Behavior, 8*(1), 33-45. doi: 10.1023/B:AIBE.0000017524.40093.6b
- Smith, D. W., Davis, J. L., & Fricker-Elhai, A. E. (2004). How does trauma beget trauma? Cognitions about risk in women with abuse histories. *Child Maltreatment, 9*(3), 292-303. doi: 10.1177/1077559504266524
- Sobel, M. E. (1982). Asymptotic intervals for indirect effects in structural equations models. In S. Leinhardt (Ed.), *Sociological methodology 1982* (pp.290-312). San Francisco: Jossey-Bass.
- Steel, J. L., & Herlitz, C. A. (2005). The association between childhood and adolescent sexual abuse and proxies for sexual risk behavior: A random sample of the general population of Sweden. *Child Abuse & Neglect, 29*(10), 1141-1153. doi: 10.1016/j.chiabu.2004.10.015

- Steer, A., & Tiggeman, M. (2008). The role of self-objectification in women's sexual functioning. *Journal of Social and Clinical Psychology, 27*(3), 205-225.
- Szymanski, D. M., & Carr, E. A. (2007). *Roles of self-objectification and sexual victimization in women's psychosexual adjustment. Conference Abstract: American Psychological Association.*
- Szymanski, D. M., Carr, E. A., & Moffitt, L. B. (2011). Sexual objectification of women: Clinical implications and training consideration. *The Counseling Psychologist, 39*, 107-126. doi: 10.1177/0011000010378450
- Szymanski, D. M., & Henning, S. L. (2007). The role of self-objectification in women's depression: A test of objectification theory. *Sex Roles, 56*(1/2), 45-53. doi: 10.1007/s11199-006-9147-3
- Szymanski, D. M., Moffitt, L. M., & Carr, E. R. (2011). Sexual objectification of women: Advances to theory and research. *The Counseling Psychologist, 39*, 6-39. doi: 10.177/001100001037842
- Taylor, G. J., Bagby, M., Ryan, D. P., Parker, J. D. A., Doody, K. F., & Keefe, P. (1988). Criterion validity of the Toronto Alexithymia Scale. *Psychosomatic Medicine, 50*(5), 500 – 509.
- Tiggeman, M., & Kuring, J. K. (2004). The role of body objectification in disordered eating and depressed mood. *British Journal of Clinical Psychology, 43*(3), 299-311. doi: 10.1348/0144665031752925
- Tripp, M. M., & Petrie, T. A. (2001). Sexual abuse and eating disorders: A test of a conceptual model. *Sex Roles: A Journal of Research, 44*(1/2), 17-32.
- Tylka, T. L., & Hill, M. S. (2004). Objectification theory as it relates to disordered eating among college women. *Sex Roles, 51*(11/12), 719-730. doi: 10.1007/s11199-004-

0721-2

- Turchik, J. A., & Garske, J. P. (2009). Measurement of sexual risk taking among college students. *Archives of Sexual Behavior, 38*(6), 936-948. DOI: 10.1007/s10508-008-9388-z
- Ullman, S. E., & Najdowski, C. J. (2009). Correlates of serious suicidal ideation and attempts in female adult sexual assault survivors. *Suicide & Life-Threatening Behavior, 39*(1), 47-57. doi: 10.1521/suli.2009.39.1.47
- Van Bruggen, L. K., Runtz, M. Z., & Kadlec, H. (2006). Sexual revictimization: The role of sexual self-esteem and dysfunctional sexual behaviors. *Child Maltreatment, 11*(2), 131-145. doi: 10.1177/1077559505285780
- van Roode, T., Dickson, N., & Herbison, P. (2009). Child sexual abuse and persistence of risky sexual behaviors and negative sexual outcomes over adulthood: Findings from a birth cohort. *The International Journal, 33*(3), 161-172. doi: 10.1016/j.chiabu.2008.09.006
- van Strien, T., & Ouwens, M. A. (2007). Effects of distress, alexithymia, and impulsivity on eating. *Eating Behaviours, 8*(2), 251-257. doi: 10.1016/j.eatbeh.2006.06.004
- Voisin, D. R. (2005). The relationship between violence exposure and HIV sexual risk behaviors: Does gender matter? *American Journal of Orthopsychiatry, 75*(4), 497-506. doi: 10.1037/0002-9432.75.4.497
- Wenninger, K., & Heiman, J. A. (1999). Relating body image to psychological and sexual functioning in child sexual abuse survivors. *Journal of Traumatic Stress, 11*(3), 543-562. doi: 10.1023/A:1024408830159
- Whealin, J. M., & Jackson, J. L. (2002). Childhood unwanted sexual attention and young women's present self-concept. *Journal of Interpersonal Violence, 17*(8), 854-871.

- Wheeler, K., Greiner, P., & Boulton, M. (2005). Exploring alexithymia, depression, and binge eating in self-reported eating disorders in women. *Perspectives in Psychiatric Care, 41*(3), 114-123. doi: 10.1111/j.1744-6163.2005.00022.x
- Wiederman, M. W. (2000). Women's body image self-consciousness during physical intimacy with a partner. *The Journal of Sex Research, 37*(1), 60-68.
- Wilson, H. W., & Widom, C. S. (2009). Sexually transmitted diseases among adults who had been abused and neglected as children: A 30-year prospective study. *American Journal of Public Health, March 2009 Supplement pS197-S203*, 1-7. doi: 10.2105/AJPH.2007.131599
- Wingood, G. M., & DiClemente, R. J. (1997). The effects of an abusive primary partner on the condom use and sexual negotiation practices of African-American women. *American Journal of Public Health, 87*(6), 1016-1018.
- Wood, E., Nosko, A., Desmarais, S., Ross, C., & Irvine, C. (2006). Online and traditional paper-and-pencil survey administration: Examining experimenter presence, sensitive material and long surveys. *Canadian Journal of Human Sexuality, 15*(3-4), 147-155.
- World Health Organization [WHO]. (2002). Sexual violence. In *World report on violence and health*. Retrieved from http://www.who.int/violence_injury_prevention/violence/global_campaign/en/chap6.pdf
- Wuensch, K. L. (2005). Using SPSS to screen data. Retrieved from <http://core.ecu.edu/psyc/wuenschk/spss/spss-lessons.htm>
- Yackobovitch-Gavan, M., Golan, M., Valevski, A., Kreitler, S., Bachar, E., Lieblich, A., et al. (2009). An integrative quantitative model of factors influencing the course

of anorexia nervosa over time. *International Journal of Eating Disorders*, 42(4), 306-317. doi: 10.1002/eat.20624

Zeitlin, S. B., McNally, R. J., & Cassiday, K. L. (1993). Alexithymia in victims of sexual assault: An effect of repeated traumatization? *The American Journal of Psychiatry*, 150(4), 661-663.

Zierler, S., Feingold, L., Laufer, D., Velentgas, P., Kantrowitz-Gordon, I., & Mayer, K. (1991). Adult survivors of childhood sexual abuse and subsequent risk of HIV infection. *American Journal of Public Health*, 81(5), 572-575.

Zlotnick, C., Shea, M. T., Pearlstein, T., Simpson, E., Costello, E., & Begin, A. (1996). The relationship between dissociative symptoms, alexithymia, impulsivity, sexual abuse, and self-mutilation. *Comprehensive Psychiatry*, 37(1), 12-16. doi: 10.1016/S0010-440X(96)90044-9

APPENDIXES

APPENDIX A

Research Announcement

My name is Laurel Watson, and I am a doctoral student at Georgia State University in counseling psychology. I am currently conducting a dissertation study regarding women's sexual experiences and sexual risk taking behaviors. If you would like to participate, you will be prompted to complete a one-time, online survey. The survey will take approximately 45 minutes to complete. You are eligible to participate in this study if (a) you are at least 18 years old; (b) female; and (c) a college undergraduate at Georgia State University. Please click on the link below if you are interested in participating: www.speedsurvey.com/INSERTSTUDY. Please contact me at lwatson11@student.gsu.edu if you have any questions about this study. You may also contact my advisor, Kenneth B. Matheny, Ph.D., at kmatheny@gsu.edu.

Sincerely,

Laurel Watson, M.S.
Doctoral Student
Counseling Psychology
Department of Counseling and Psychological Services
Georgia State University

APPENDIX B

Georgia State University
Department of Counseling & Psychological Services
Informed Consent

Title:

Principal Investigator: Kenneth B. Matheny, Ph.D.
Principal Student Investigator: Laurel Watson, M.S.

I. Purpose:

You are invited to take part in a research study. The purpose of the study is to see how sexual experiences may affect risky sexual behavior in women. You are invited to participate because you are at least 18 years old and a female college student. A total of 200 participants will be in this study. Taking part in this study will take 45 minutes of your time over one period.

II. Procedures:

If you decide to take part in this study you will take one online survey. The survey will take about 45 minutes to complete. You may take part in this study at any time. However, it may be best to take this survey during the hours of 9 am to 5 pm. You will not have to interact with anyone while taking this survey. If you get upset you may go to the Counseling and Testing Center at Georgia State University. You may also get counseling from free or low-cost mental health professionals.

III. Risks:

There is a chance that taking part in this study may cause you to become upset. If you become upset you may stop. You will be given a list of free or low-cost mental health referrals. You also have access to the Georgia State University's Counseling and Testing Center.

IV. Benefits:

Taking part in this study may benefit you. Research has shown that people may experience relief and better mood after sharing upsetting experiences. We hope to learn how sexual experiences may affect sexual behaviors. This may help women may stop risky sexual practices.

V. Voluntary Participation and Withdrawal:

Participation in research is voluntary. You do not have to be in this study. You may drop out at any time if you change your mind. You may skip questions or stop taking the survey at any time. You will not lose any benefits.

VI. Confidentiality:

We will keep your records private to the extent allowed by law. Kenneth B. Matheny, Ph.D. and Laurel Watson, M.S. will have access to the information you provide. Information may also be shared with those who make sure the study is done correctly (GSU Institutional Review Board, the Office for Human Research Protection (OHRP) and/or the Food and Drug Administration (FDA), and the sponsor). Since this is a confidential online survey, we will be using encryption and will not be collecting names or IP addresses. All data will be stored on a password and firewall-protected computer. Any facts that might point to you will not appear when we present this study or publish its results. The findings will be summarized and reported in group form. You will not be identified personally.

VII. Georgia State University Disclaimer:

If you have any question about this study, or believe you have suffered any injury because of participation in the study, you may contact Kenneth B. Matheny at (404) 413-8171. If you get upset you may seek emergency services at Georgia State University's Counseling and Testing Services between the hours of 9 am and 5 pm. You will also be provided with other free or low-cost mental health referrals. Georgia State University has not set aside funds to pay for this care or to compensate you if something should occur.

VIII. Contact Persons:

Contact Kenneth B. Matheny, Ph.D. [(404) 413-8171; kmatheny@gsu.edu] or Laurel Watson, M.S. [(404) 413-8171; lwatson11@student.gsu.edu] if you have questions about this study. If you have questions or concerns about your rights as a participant in this research study, you may contact Susan Vogtner in the Office of Research Integrity at 404-413-3513 or svogtner1@gsu.edu.

VIII. Copy of Consent Form to Subject:

You may print a copy of this consent form to keep.

If you agree to participate in this research, please click the "Next Page" button.

APPENDIX C

Low Cost Referral Services

- Georgia State University Counseling and Testing Center
75 Piedmont Ave., NE, Suite 200A
(404) 413-1640
- Georgia State University Psychology Clinic
www2.gsu.edu
Urban Life, 11th floor
140 Decatur Street
Atlanta, GA 30303-3083
(404) 413-6229
- Emory University Psychological Clinic
Department of Psychology
Suite 270
36 Eagle Row
Emory University
Atlanta, GA 30322
404-727-7451
- Grady Walk-In Emergency Clinic
(404) 616-4762
Open 24 hours
- 24 hour mental health crisis line at **800-715-4225**.
- Rape Crisis Centers (by county)
 - Carroll County (770) 834-7273
 - Clayton County (770) 477-2177
 - Cobb County (770) 427-3390
 - Dekalb County (770) 377-1429
 - Fulton (Grady) (404) 616-4861
 - Gainesville (770) 503-7273
 - Gwinnett Sexual Assault Center (770) 476-7407
- AID Atlanta (for confidential, fast STD testing)
www.aidatlanta.org
1605 W Peachtree Street Northeast
Atlanta, GA 30309-2433
(404) 870-7700
- National Sexual Assault Hotline: 1.800.656.HOPE

APPENDIX D
Demographics Form

1. Please indicate your age:

2. Please circle the racial/ethnic group with which you identify
 - a. Asian/Pacific Islander, Please specify -

 - b. Black/African American, Please specify

 - c. Caucasian/White/European American, Please specify

 - d. East Indian, Please specify

 - e. Hispanic/Latina, Please specify _____
 - f. Middle Eastern, Please specify

 - g. Multiracial/ethnic, Please specify

 - h. Native American/American Indian, Please specify

 - i. Other, Please specify

3. Please indicate your spiritual/religious affiliation (if applicable)
 - a. Agnostic
 - b. Atheist
 - c. Buddhist/Taoist
 - d. Christian/Catholic
 - e. Christian/Protestant
 - f. Christian/Other
 - g. Hindu
 - h. Jewish
 - i. Muslim/Islam
 - j. Spiritual, but not religious
 - k. Wiccan/Pagan/Neo-Pagan, Please specify _____
 - l. Other, Please specify _____

4. Please indicate your sexual orientation:
 - a. Lesbian/gay
 - b. Straight/heterosexual
 - c. Bisexual
 - d. Pan-sexual/omni-sexual
 - e. Other, Please specify_____

5. Please indicate your year in school:
 - a. Freshman
 - b. Sophomore
 - c. Junior
 - d. Senior

6. Please indicate your marital status:
 - a. Single
 - b. In a monogamous dating relationship (i.e., dating only one person)
 - c. In a non-monogamous dating relationship (i.e., dating more than one person)
 - d. Married/Partnered
 - e. Married/Partnered, but separated
 - f. Divorced

7. Please indicate the form(s) of contraception (i.e., measures you take to prevent pregnancy and/or HIV/AIDS/sexually transmitted infections) that you currently use. Please check all that apply:
 - a. None
 - b. Abstinence
 - c. Condom
 - d. Spermicide
 - e. Oral contraceptives/birth control pills
 - f. Vaginal ring
 - g. Birth control patch
 - h. Birth control shot/Depo-Provera
 - i. Sponge
 - j. Foam
 - k. Diaphragm
 - l. Cervical cap
 - m. Intrauterine device (IUD)
 - n. Withdrawal
 - o. Rhythm method
 - p. Sterilization
 - q. Some other method, Please specify_____

8. Please indicate the number of sexual partners (i.e., this includes individuals you have had vaginal, oral, and/or anal sex with) you have had within the last year (i.e., from today's date until this date last year): _____
9. How old were you when you had *consensual (i.e., sex that you agreed to) sex* for the first time?
 - a. I have never had sexual intercourse
 - b. 11 years old or younger
 - c. 12 years old
 - d. 13 years old
 - e. 14 years old
 - f. 15 years old
 - g. 16 years old
 - h. 17 years or older
10. Please indicate your pregnancy history:
 - a. Never been pregnant
 - b. One prior pregnancy
 - c. Two prior pregnancies
 - d. Three or more prior pregnancies
11. Of these pregnancies, how many did you carry to term (i.e., give birth to?). Select N/A (not applicable) if you have never been pregnant.
 - a. 1
 - b. 2
 - c. 3
 - d. 4 or more
 - e. N/A
12. Please indicate your primary caretaker(s)/guardian(s) highest level of education:
 - a. Some high school
 - b. High school diploma
 - c. Associates degree
 - d. Some college
 - e. College degree
 - f. Master's degree
 - g. Doctoral Degree
 - h. Post-Doctoral

APPENDIX E
Syntax for Model A

TITLE Syntax for Model A

OBSERVED VARIABLES

CTQSAS OBCBSurv TAS20 OBCBSh CSES SRS

CORRELATION MATRIX

1.000

.006 1

.115 .476 1

.113 .226 .341 1

-.079 -.124 -.184 -.406 1

.166 .092 .087 -.07 .051 1

STANDARD DEVIATIONS

4.10 1.06 1.27 12.39 10 9.73

SAMPLE SIZE 556

LATENT VARIABLES

LCTQSAS LOBCBSurv LTAS20 LOBCBSh LCSES LSRS

EQUATIONS

CTQSAS = 1*LCTQSAS

OBCBSurv = 1*LOBCBSurv

TAS20 = 1* LTAS20

OBCBSh = 1* LOBCBSh

CSES = 1*LCSES

SRS = 1* LSRS

LSRS = LTAS20 LOBCBSh LCSES

LTAS20 = LOBCBSurv

LOBCBSh = LOBCBSurv

LCSES = LOBCBSurv

LOBCBSurv = LCTQSAS

LCSES = LOBCBSh

SET THE ERROR VARIANCE OF CTQSAS – SRS TO 0

OPTIONS mi nd = 5

PATH DIAGRAM

END OF PROBLEM

APPENDIX F
Syntax for Model B

TITLE Syntax for Model B

OBSERVED VARIABLES

CTQSAS OBCBSurv TAS20 OBCBSh CSES SRS

CORRELATION MATRIX

1.000

.006 1

.115 .476 1

.113 .226 .341 1

-.079 -.124 -.184 -.406 1

.166 .092 .087 -.07 .051 1

STANDARD DEVIATIONS

4.10 1.06 1.27 12.39 10 9.73

SAMPLE SIZE 556

LATENT VARIABLES

LCTQSAS LOBCBSurv LTAS20 LOBCBSh LCSES LSRS

EQUATIONS

CTQSAS = 1*LCTQSAS

OBCBSurv = 1*LOBCBSurv

TAS20 = 1* LTAS20

OBCBSh = 1* LOBCBSh

CSES = 1*LCSES

SRS = 1* LSRS

LSRS = LTAS20 LOBCBSh LCSES

LTAS20 = LOBCBSurv LCTQSAS

LOBCBSh = LOBCBSurv LCTQSAS

LCSES = LOBCBSurv LCTQSAS

LCSESh = LOBCBSh

LOBCBSurv = LCTQSAS

SET THE ERROR VARIANCE OF CTQSAS – SRS TO 0

OPTIONS mi nd = 5

PATH DIAGRAM

END OF PROBLEM